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1976

ENVIRONMENTAL MONITORING AND BASELINE DATA

Compiled under the

SMITHSONIAN INSTITUTION

ENVIRONMENTAL SCIENCES PROGRAM

Temperate Studies

Rhode River, Maryland

Edited by David L. Correll

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INTRODUCTION

The formation of the Chesapeake Bay Center for Environmental Studies was initiated in 1964 and land acquisition as well as facilities development is still going on. At present the center has approximately 2,600 acres of land (approximately 4 square miles) and controls the water frontage and near water portions of a large part of the Rhode River watershed. The Rhode River is a small subestuary of the Chesapeake Bay (approximately 0.1 percent of the open water area of the bay, see map number 1). It is large enough to have the complexities and many of the properties typical of larger subestuaries of the bay, but small enough to be studied in depth. The Rhode River has an open water area of approximately 2 square miles and a watershed of approximately 13 square miles.

The goals of the Rhode River Program are (1) to establish an understanding of the operation of this ecosystem with special emphasis upon the interaction of the watershed and the estuary and (2) to monitor long-term changes in the ecosystem and relate them to the activities of man as well as to other variations in environmental conditions.

The watershed of the Rhode River is actually composed of about twelve subwatersheds, each of which contains a different pattern of land use. Of these subwatersheds a number have a topography which lends itself to monitoring the composition and volume of the runoff water. These runoff waters have a fundamental impact upon the corresponding portions of the Rhode River estuary. Map number 2 outlines the boundaries of the subwatersheds and Table 1 details the area and land use composition of the subwatersheds monitored in 1975.

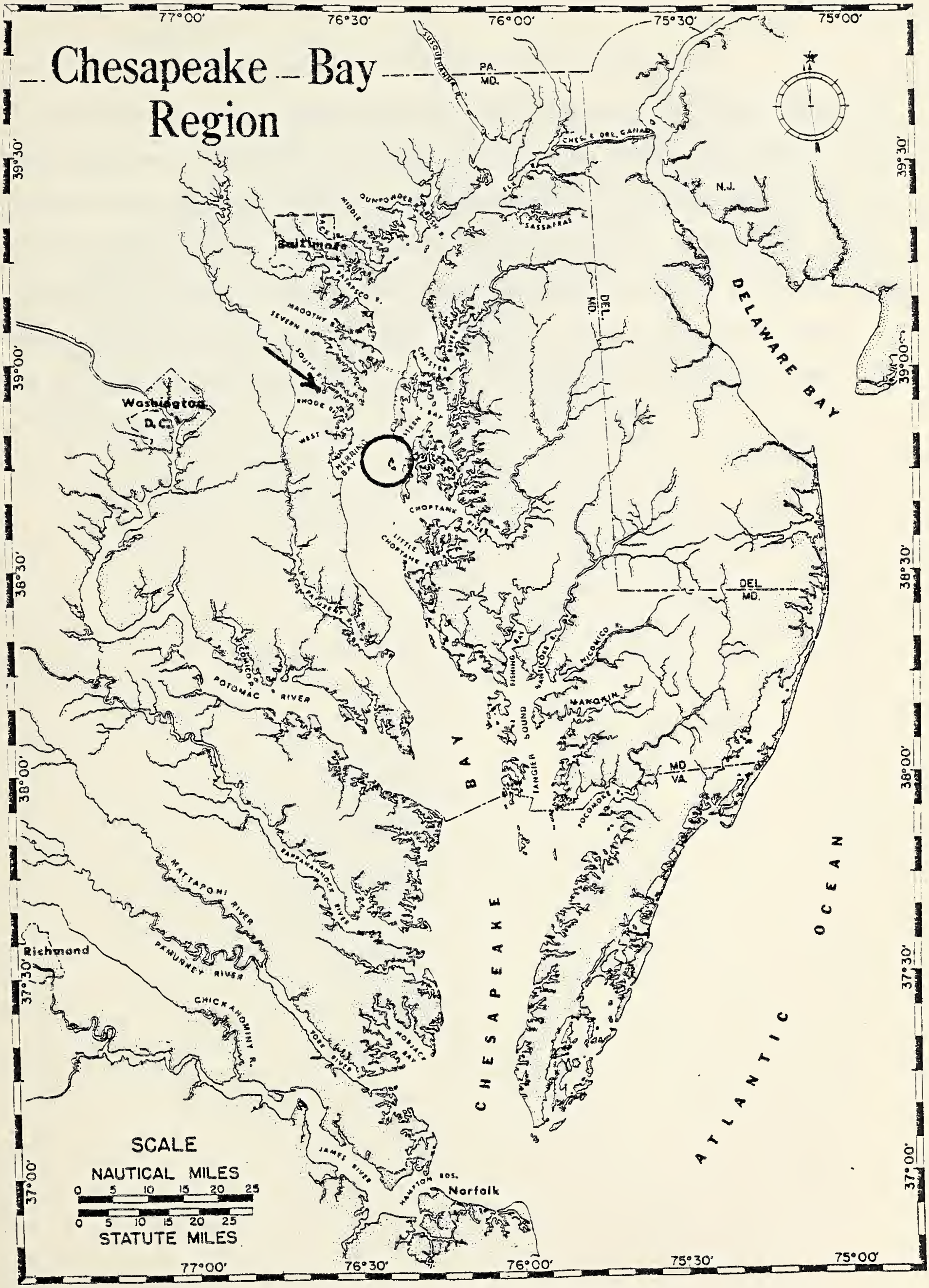
Another major interaction of the Rhode River ecosystem is the exchange of water masses with the open bay. This maintains the salinity gradient and determines many of the properties of the estuary. Map number 3 illustrates the aquatic system with channel axes and axial distances marked. Map number 4 illustrates the estuarine sampling stations and transects in the Rhode River. These are the stations used for integrated data collection for the development of estuarine models.

In 1976 research projects were initiated in the Severn and Choptank Rivers. Maps show the stations used in these studies. The major goal of this work was to compare submerged vascular plant data and environmental data at these sites with Rhode River data.

In 1966 the Smithsonian Institution was given the first of a group of Islands in Chesapeake Bay called the Poplar Island Group (map 7). Some research has been conducted there over the intervening years and will be included in this report.

This report is primarily a guide to the research data collected during 1976. In the interests of practicality, all data which is currently scheduled to be included in the Center's computer data bank on magnetic tape will only be described sufficiently for interested parties to identify what is in the bank, whether it would be of interest to retrieve it, and how to in fact retrieve it. Other categories of data will be handled as in previous yearly reports.

Figure 1. Map of the Chesapeake Bay area. An arrow points to the location of the Rhode River subestuary. The Poplar Islands are enclosed in a circle.



Chesapeake Bay Region
77°00'
76°30'
76°00'
75°30'
75°00'
39°30'
39°00'
38°30'
38°00'
37°30'
37°00'
PA.
MD.
N.J.
DEL.
MD.
DEL.
MD.
MD
VA.
Baltimore
Washington D.C.
Richmond
Norfolk
DELAWARE BAY
ATLANTIC OCEAN
CHESAPEAKE BAY
SUSQUEHANNA R.
GUNPOWDER R.
MIDDLE R.
BUSH R.
ELK R.
SASSAFRAS R.
CHES. & DEL. CANAL
PATAPSCO R.
MAGOTHY R.
SEVERN R.
SOUTH R.
RHODE R.
WEST R.
HERRING BAY
CHESTER RIVER
CHOPTANK RIVER
LITTLE CHOPTANK R.
PATUXENT R.
POTOMAC RIVER
NANTICOKE R.
WICOMICO R.
MANOKIN
FISHING BAY
SOUND
TANGIER
POCOMOKE R.
RAPPAHANNOCK RIVER
MATTAPONI RIVER
PAMUNKEY RIVER
CHICKAHOMINY R.
YORK RIVER
MOBJACK BAY
JAMES RIVER
HAMPTON RDS.
SCALE
NAUTICAL MILES
0 5 10 15 20 25
0 5 10 15 20 25
STATUTE MILES

Figure 2. Map of the watershed of the Rhode River subestuary of Chesapeake Bay. Subwatershed boundaries are delineated with dashed lines. Stream-gauging notch weirs, with automated discharge rate-recording and volume-integrated water sampling instrumentation are now operating at locations 101, 102, 103, 105, 106, 107, 108, 109, and 110. Tidal flux stations with recording current meter and tide gauge interfaced with volume-integrated water samplers for incoming and for outgoing tidal waters are now operating at stations 121 and 122. The Rhode River grid is shown on the margins.

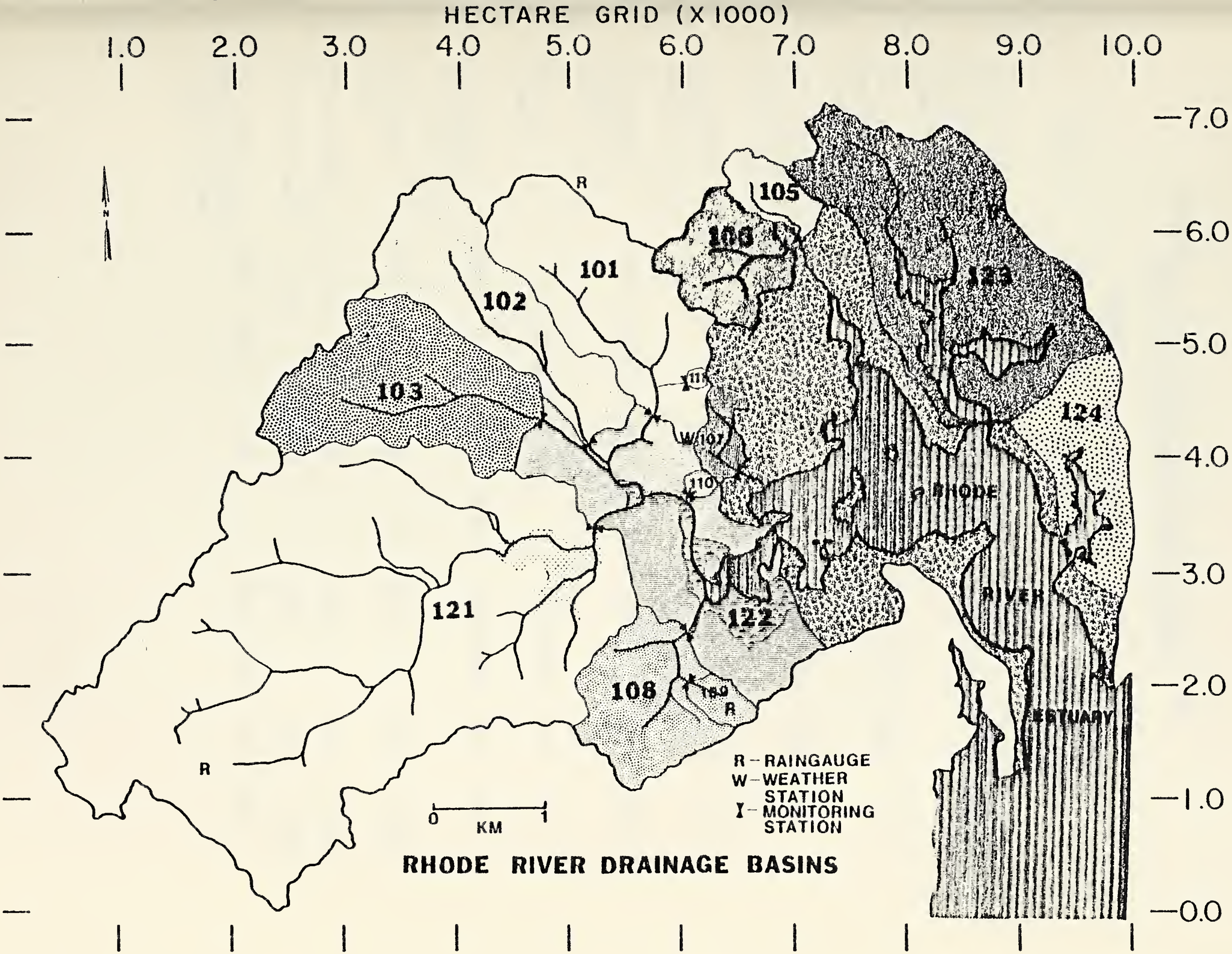

HECTARE GRID (X 1000)
1.0
2.0
3.0
4.0
5.0
6.0
7.0
8.0
9.0
10.0
-7.0
-6.0
-5.0
-4.0
-3.0
-2.0
-1.0
-0.0
N
R
101
102
103
105
108
110
W 107
121
122
124
R
R
RHODE
RIVER
ESTUARY
0 KM 1
R – RAINGAUGE
W – WEATHER STATION
I – MONITORING STATION
RHODE RIVER DRAINAGE BASINS

TABLE 1. LAND USE ANALYSIS OF RHODE RIVER ESTUARY WATERSHEDS UNDER STUDY.

Basin	Hectares in each land use category[1]				
	Row Crops	Hay Fields	Upland wet areas	Tidal marshes	Forest
101 (North Branch of Muddy Creek)	21.6 (9.6)	0.72 (0.3)	2.40 (1.1)	0.00	85.3
102 (Blue Jay Branch of Muddy Creek)	34.8 (18.1)	6.68 (3.5)	0.97 (0.5)	0.00	90.6
103 (Williamson Branch of Muddy Creek)	5.09 (2.0)	10.4 (4.1)	0.68 (0.3)	0.00	159
105 (North Branch of Sellman Creek)	4.91 (13.1)	1.52 (4.1)	0.00	0.00	11.7
106 (South Branch of Sellman Creek)	12.1 (12.7)	14.7 (15.4)	0.00	0.00	42.8
107 (Fox Creek)	2.45 (13.5)	0.00	0.19 (0.67)	0.00	16.8
108 (Steinlein Branch of Muddy Creek)	35.2 (23.5)	14.2 (9.5)	1.36 (0.91)	0.00	58.4
109 (Corn Field)[2]	10.4 (63.8)	0.00	0.00	0.00	4.26
110 (Forest)	0.00	0.00	0.00	0.00	5.71
111 (Pasture)[3]	0.00	0.00	0.00	0.00	1.65
121 (Main Branch of Muddy Creek Flux Section)	260 (21.2)	**	59.0 (4.8)	0.00	549

TABLE 1. LAND USE ANALYSIS OF RHODE RIVER ESTUARY WATERSHEDS UNDER STUDY

	Hectares in each land use category[1]				
	Old Fields	Pasture	Feed Lots[7]	Residential and others	Total area
(37.7)	41.6 (18.4)	60.7 (26.9)	0.000	13.6 (6.0)	226
(47.2)	13.0 (6.8)	34.8 (18.1)	0.036	10.8 (5.6)	192
(62.8)	35.6 (14.1)	31.4 (12.4)	0.062	11.6 (4.6)	253
(31.2)	18.4(49.1)	0.80 (2.1)	0.000	0.16(0.4)	37.5
(44.9)	4.77(5.0)	19.6 (20.7)	0.100	1.22(1.3)	95.3
(59.6)	4.67(16.6)	2.54(9.0)	0.000	1.56(5.5)	28.2
(38.9)	20.2 (13.5)	16.2 (10.8)	0.028	4.82(3.2)	150
(26.1)	1.37(8.4)	0.00	0.000	0.26(1.6)	16.3[2]
(90.6)	0.53(8.4)	0.00	0.000	0.054(0.9)	6.3
(27.3)	0.00	4.41 (72.7)	0.000	0.00	6.06[3]
(44.7)	157 (12.8)	109 (8.8)	**	94.8 (7.7)	1229.0

TABLE 1. LAND USE ANALYSIS OF RHODE RIVER ESTUARY WATERSHEDS UNDER STUDY.

Basin	Hectares in each land use category[1]				
	Row Crops	Hay Fields	Upland wet areas	Tidal marshes	Forest
122 (Fox Point Flux Section)[4]	22.1 (7.4)	**	0.70 (0.2)	46.9 (15.7)	203
123 (Bearneck Creek Flux Section)[5]	21.5 (6.6)	**	(0.00)	(8.9)(2.7)	129
124 (Cadle Creek Flux Section)[6]	2.6 (2.1)	**	0.5 (0.4)	0.8 (0.7)	19.0
Total Area	422 (14.2)	48.2 (1.6)	65.8 (2.2)	56.6 (1.9)	1370

Footnotes:

1. Land use in 1976 for basins 101-111, and in 1972 for basins 121-124. The numbers in parentheses are percentages.

2. This basin is part of basin 108.

3. This basin is part of basin 101.

4. Also includes basin 101, 102, 103, 108, 110, 121, and 26 ha of mud flats and tidal creek.

5. Also includes 60.7 ha of tidal creek open waters.

6. Also includes 19.9 ha of tidal creek of open waters.

7. Feed lot area was arbitrarily determined to be 0.001 ha per hog.

** This category was not separated from the others.

TABLE 1. LAND USE ANALYSIS OF RHODE RIVER ESTUARY WATERSHEDS UNDER STUDY

Hectares in each land use category[1]

	Old Fields	Pasture	Feed Lots[7]	Residential and others	Total area
(67.9)	15.3(5.1)	0.5 (0.2)	**	10.5 (3.5)	299.4
(39.5)	40.3(12.3)	8.4 (2.6)	**	118 (36.2)	327.5
(15.7)	15.3(12.6)	19.1 (15.8)	**	63.9 (52.8)	121.6
(46.2)	367(12.4)	303 (10.2)	0.226(0.0)	331 (11.2)	2964 (89%)

Figure 3. Map of the Rhode River subestuary of Chesapeake Bay. The names of the various arms of Rhode River are given. Channel axes are drawn in with axial distances in kilometers from the mouths upstream. Rooted, submerged aquatic plant sampling stations are designated.

Figure 3. Rhode River estuary map.

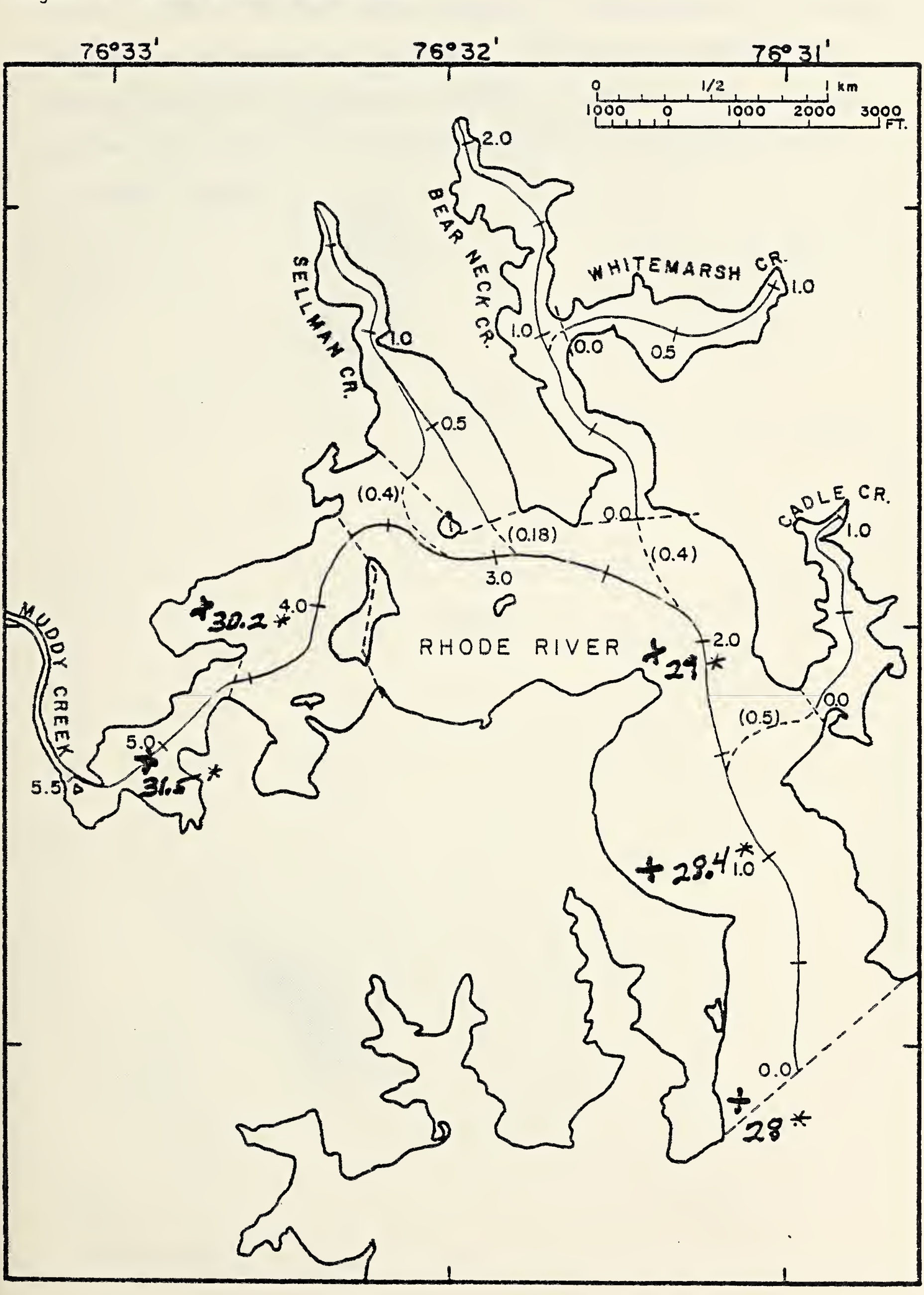


Figure 4. Map of the Rhode River subestuary of Chesapeake Bay. Transect stations are designated by a terminal T. In general, parameters were measured as vertical profiles or vertically integrated samples at point stations and as horizontally integrated samples or horizontal profiles at transect stations.

Figure 4. Map of the Rhode River subestuary of Chesapeake Bay.

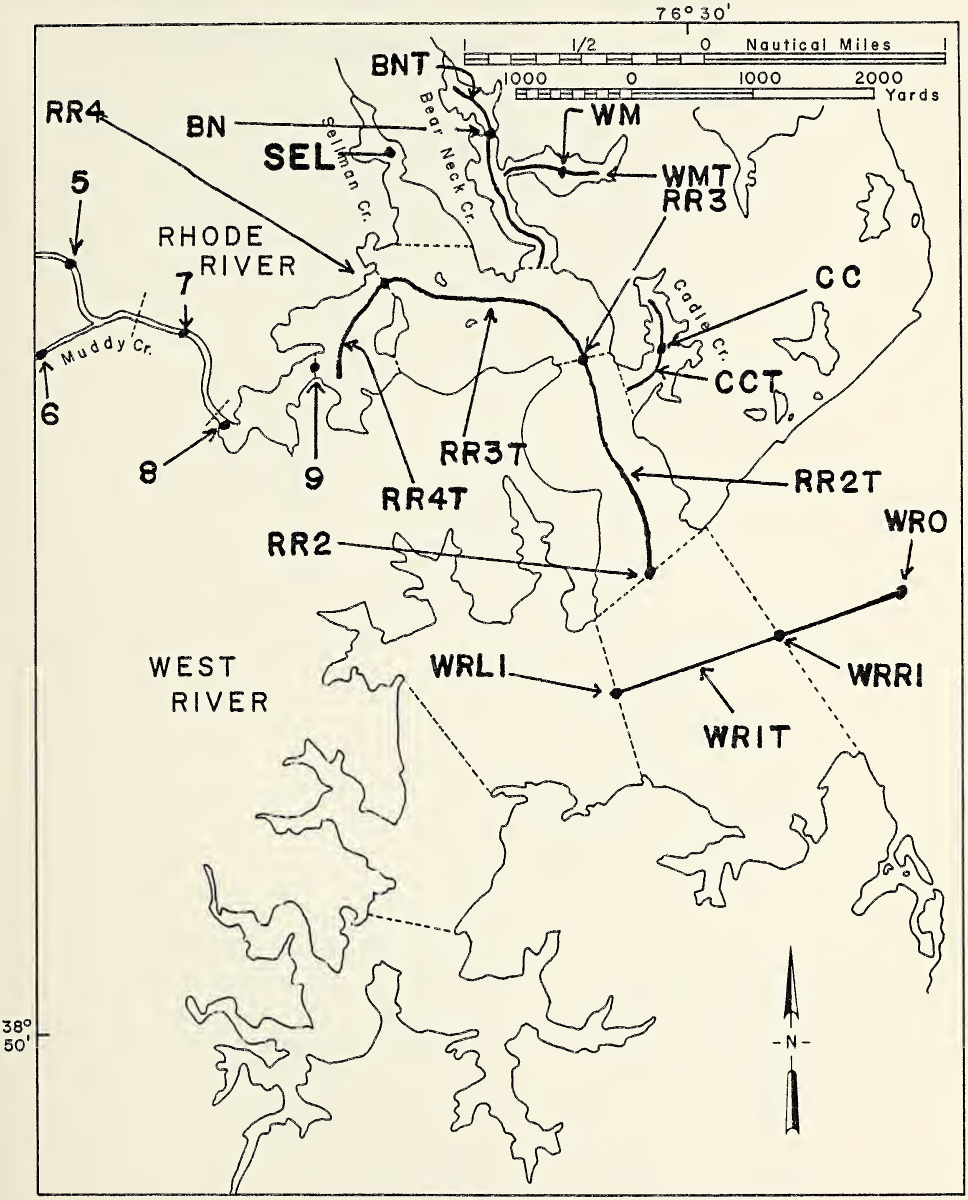


Figure 5. Severn River sampling stations.

Figure 5. Severn River map.

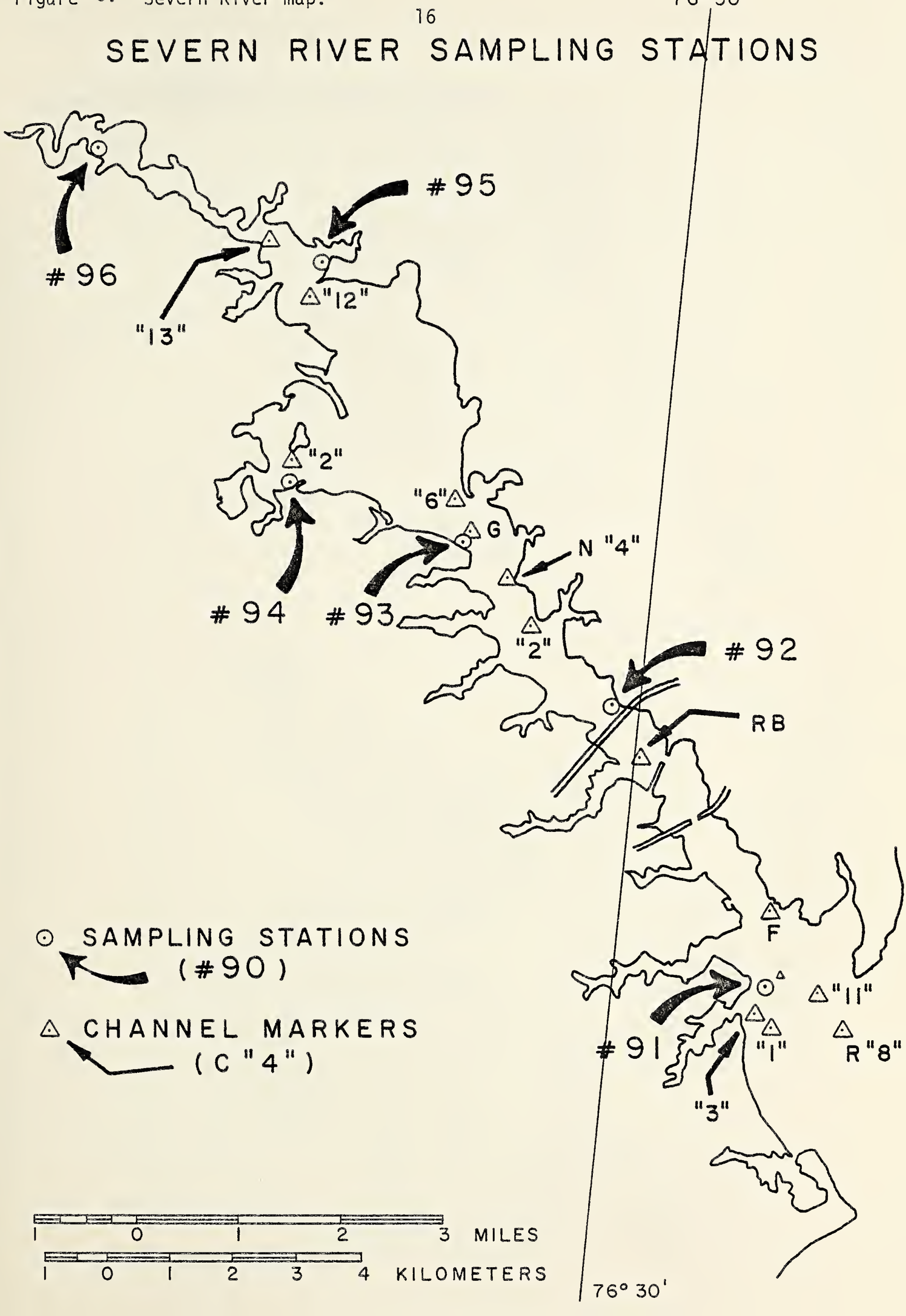


Figure 6. Choptank River sampling stations.

Figure 6. Choptank River map.

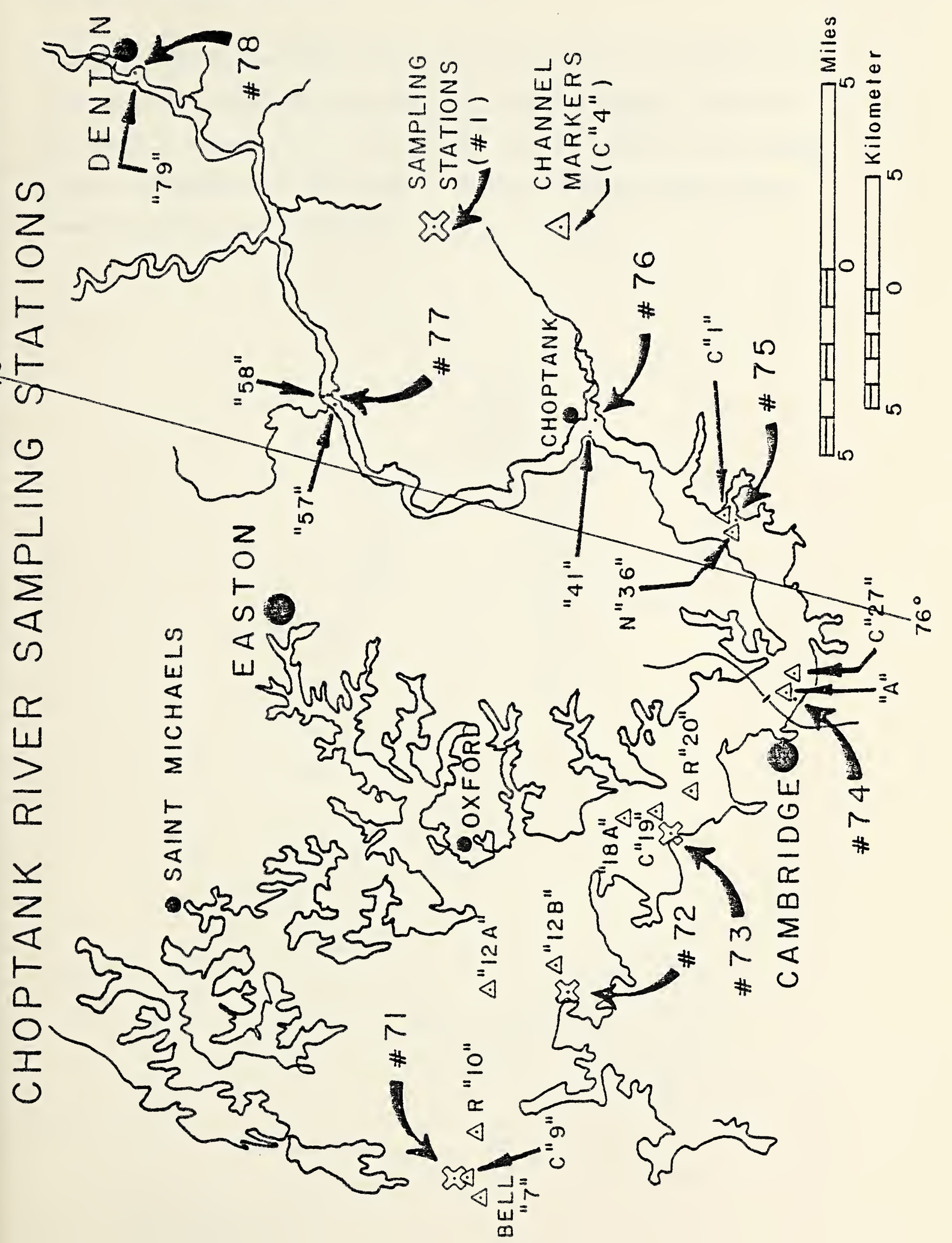


Figure 7. Map of the Poplar Island group with approximate boundaries at various times in the past designated. In 1976 only Coaches Island was not owned by the Smithsonian Institution. For the location of the island group in Chesapeake Bay see Figure 1. Rooted, submerged aquatic plant sampling stations are designated.

Figure 7. Poplar Island map.

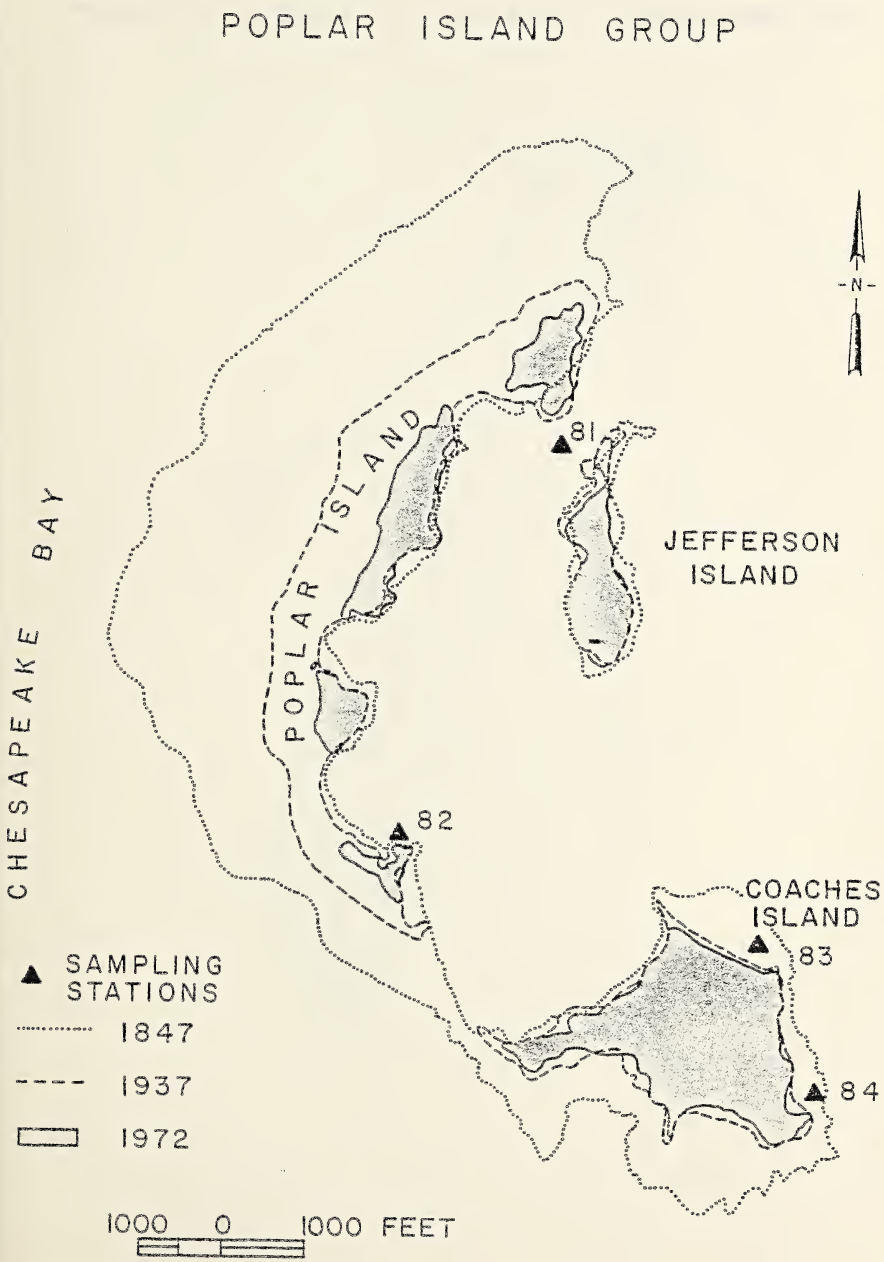


Figure 8. Watershed 109 map. This small watershed is a subwatershed of watershed 108 in Figure 2 and is also known as Intensive Study Site No. 14.

Figure 8. Watershed 109 map, a field-sized cropland (corn) watershed.

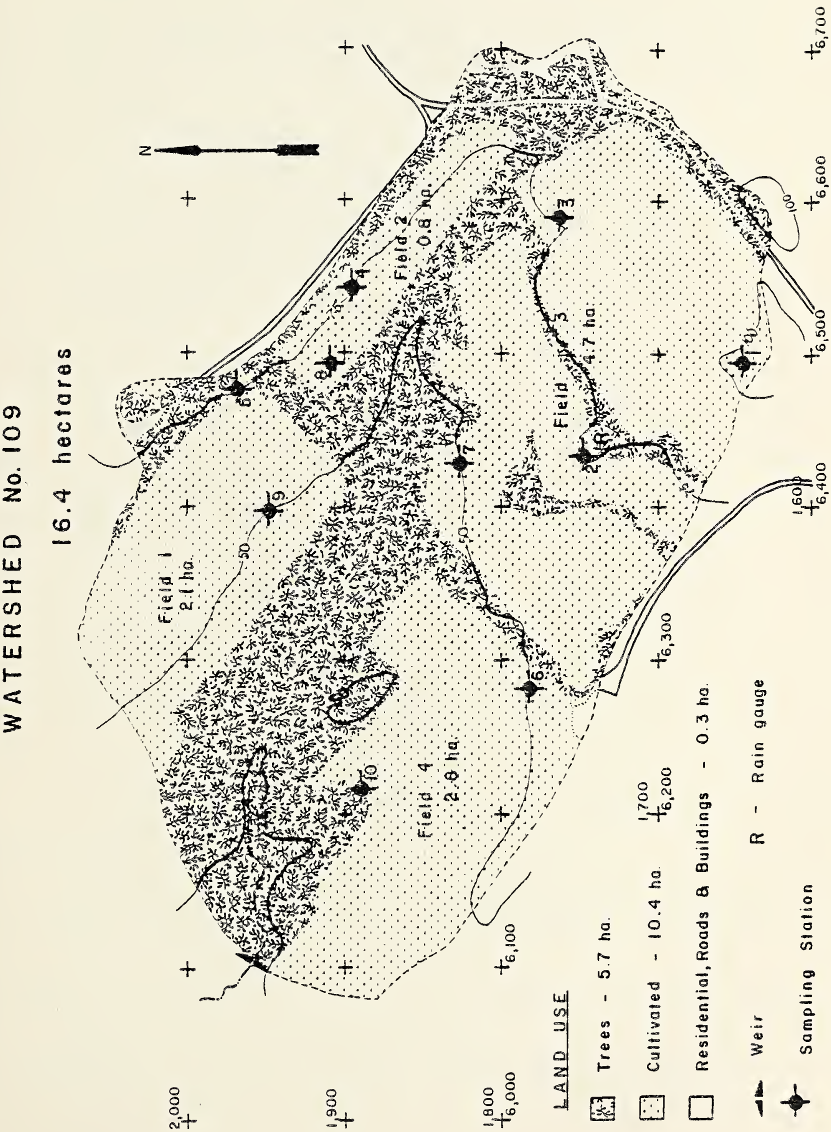


Figure 9. Watershed 110 map. This small watershed is also known as Intensive Study Site No. 2.

Figure 9. Watershed 110 map, a field-sized forest watershed.

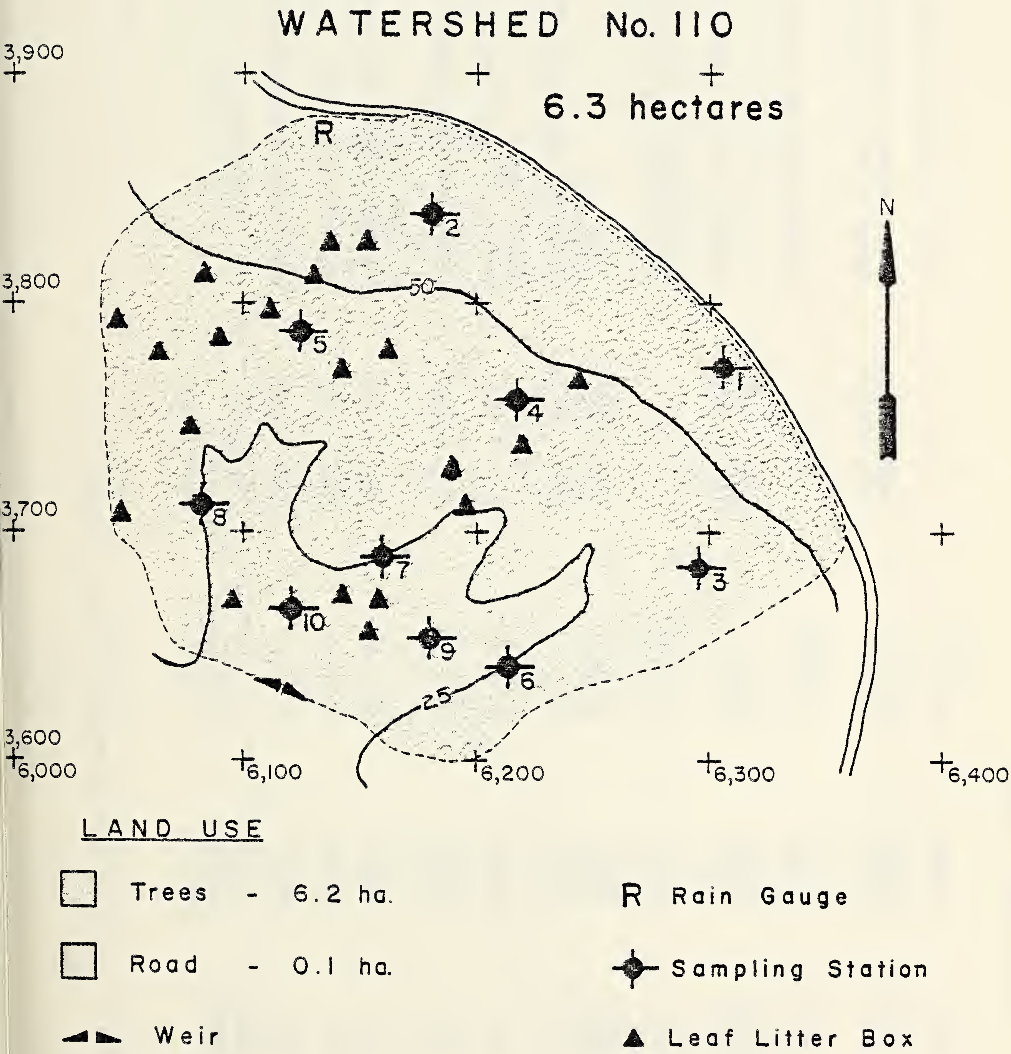


Table 2. Station Description for Estuarine Stations.

Station name	Computer station code	Axial designation (Km)	Rhode River grid location	Description
C5	00035	RR 6.8 N	5578 - 3723	North fork of Muddy Creek.
C6	00034	RR 6.95	5500 - 3506	Main branch of Muddy Creek above fork.
C7	00033	RR 6.15	6084 - 3409	Halfway between C8 and the first fork of Muddy Creek.
C8	00032	RR 5.40	6217 - 2868	Downstream end of Muddy Creek channel.
C9	00031	RR 4.50	6976 - 3313	Between Fox Point and northern end of Corn Island.
RR4C RR4B RR4A	030.4 030.2 00030	RR 4.3 RR 4.0 RR 3.65	7169 - 3373 7265 - 3687 7470 - 3976	In channel west of northern end of Big Island.
RR4T	00042	RR 3.65 - 4.3	*	Transect from RR4 to northeast of Corn Island.
RR3B RR3A	029.4 00029	RR 3.3 RR 2.1	7711 - 3928 8952 - 3482	Channel near RR7 channel marker.
RR3T	00041	RR 1.8 - 3.65	*	Transect from RR3 to RR4.
RR2B RR2 A	028.4 00028	RR 1.0 RR 0.0	9193 - 2675 9518 - 1578	Center of mouth of Rhode River (line from Dutchman's Point to Cheston Point).
RR2T	00040	RR 0.0 - 1.9	*	Transect from RR2 to RR3.

* See individual stations.

Table 2. (Continued)

Station name	Computer station code	Axial designation (Km)	Rhode River grid location	Description
WR1B	022.4	WR 0.6	9843 - 0976	In West River off Cheston Point.
WR1C	00023	WR 1.2	9193 - 0723	
WR1A	00022	RR -1.17 (WR 0.0)	10373 - 1217	Center of mouth of West River (line from Dutchman's Point to Curtis Point).
WR1T	00026	WR 0.0 1.2	*	Transect from WRR1 to WRL1.
WR0	00021	WR -1.0	11265 - 1458	WR2 channel marker.
SEL	00036	1.3	7470 - 5072	Sellman Creek.
CCA	038.8	CC 0.0	9398 - 3156	In Cadle Creek channel.
CCB	00039	CC 0.5	9590 - 3626	
CCC	039.2	CC 1.0	9494 - 4012	
CCT	00045	CC 0.0 - 1.0	*	Transect from CC Km 0 to CC Km 1.0.
BNA	036.6	BN 0.0	8651 - 4036	In Bear Neck Creek channel.
BNB	036.8	BN 0.8	8337 - 4687	
BNC	00037	BN 1.3	8265 - 5265	
BNT	00043	BN 0.0 - 1.6	*	Transect from BN Km 0 to BN Km 1.6.
WMA	037.8	WM 0.0	8385 - 4880	In Whitemarsh Creek channel.
WMB	00038	WM 0.45	8795 - 4892	
WMC	038.2	WM 0.7	8988 - 4892	
WMT	00044	WM 0.0 - 0.9	*	Transect from WM Km 0 to WM Km 0.9.

Table 2. (Continued)

Station name	Computer station code	Axial designation (Km)	Rhode River grid location	Description
	00028**	RR 0.0	9100 - 1400	Mouth of the Rhode River off Cheston Point.
	028.4**	RR 1.0	8600 - 2500	In Canning House Bay, south of channel marker RR 4.
	00029**	RR 2.1	8750 - 3400	In shallows south of channel marker RR 7.
	030.2**	RR 4.0	6700 - 3600	In shallows off Fox Cove.
	031.5**	RR 5.1	6450 - 2950	Center of sediment trap area at mouth of Muddy Creek.
RR2T	00040	NA	*	Transect
RR3T	00041	NA	*	Transect
RR4T	00042	NA	*	Transect

* See individual stations.
** These stations are not in the channel, but in the shallows.

Table 2. (Continued)

Station name	Computer station code	Axial designation (Km)	Latitude N/ Longitude W	Description
71	00071	CR 0.6	38° 39' 0" 76° 20' 0"	In shallows just north of channel marker 9.
72	00072	CR 10.2	38° 37' 42" 76° 13' 45"	In shallows on upstream shore of Todd Point.
73	00073	CR 20.8	38° 36' 12" 76° 8' 21"	In shallows on upstream shore of Horn Point.
74	00074	CR 30.8	38° 34' 6" 76° 3' 24"	On south shore at concrete bulkhead just downstream from channel marker 27.
75	00075	CR 39.6	38° 36' 33" 75° 58' 30"	On southeastern shoreline opposite Warwick Creek.
76	00076	CR 48.4	38° 40' 27" 75° 56' 42"	On eastern shoreline opposite channel marker 41 (at mouth of Hunting Creek).
77	00077	CR 67.9	38° 46' 42" 75° 57' 48"	On southeastern shore opposite channel marker 58 (on upstream side of a narrow point).
78	00078	CR 88.3	38° 52' 57" 75° 50' 24"	On the western shore opposite channel marker 79 (just downstream from Denton).
71T	0071T	NA	*	Transect
72T	0072T	NA	*	Transect

Table 2. (Continued)

Station name	Computer station code	Axial designation (Km)	Latitude N/ Longitude W	Description
73T	0073T	NA	*	Transect
74T	0074T	NA	*	Transect
75T	0075T	NA	*	Transect
76T	0076T	NA	*	Transect
77T	0077T	NA	*	Transect

* See individual stations.

Table 2. (Continued)

Station name	Computer station code	Axial designation (Km)	Latitude N/ Longitude W	Description
81	00081	NA	38^{0} 46' 12" 76^{0} 22' 30"	Midway between Jefferson Island and northern Poplar Island in 3-4 feet of water.
82	00082	NA	38^{0} 45' 33" 76^{0} 22' 42"	On inner (eastern) side of south end of Poplar Island.
83	00083	NA	38^{0} 45' 18" 76^{0} 21' 57"	Near dock of northeastern side of Coaches Island.
84	00084	NA	38^{0} 45' 0" 76^{0} 21' 45"	On eastern shore of southeastern corner of Coaches Island.
81T	0081T	NA	*	Transect
82T	0082T	NA	*	Transect
83T	0083T	NA	*	Transect

* See individual stations.

Table 2. (Continued)

Station name	Computer station code	Axial designation (Km)	Latitude N/ Longitude W	Description
91	00091	SeR 1.9	38^{o} 58' 18" 76^{o} 28' 18"	In shallows south of warning marker at Horn Point.
92	00092	SeR 7.3	39^{o} 0' 30" 76^{o} 30' 15"	On north shore just upstream from highway 50 bridge.
93	00093	SeR 10.9	39^{o} 1' 45" 76^{o} 32' 6"	In shallows on south shore at Brewer Point.
94	00094	SeR 13.2	39^{o} 2' 6" 76^{o} 34' 0"	In shallows on southwest shore of Round Bay, just west of small marsh point.
95	00095	SeR 16.0	39^{o}. 4' 0" 76^{o} 33' 51"	On the western shore of Cedar Point.
96	00096	SeR 20.2	39^{o} 4' 48" 76^{o} 36' 24"	At upper extent of 5-foot channel near a small island.
91T	0091T	NA	*	Transect
92T	0092T	NA	*	Transect
93T	0093T	NA	*	Transect
94T	0094T	NA	*	Transect
95T	0095T	NA	*	Transect

* See individual stations.

Table 3. Cross Comparison List of Watershed and Upland Stations.

Station name	Computer station code	Rhode River grid location	Description
Spring house	00099	5768 - 3793	900' northeast of junction of North and Main forks of Muddy Creek.
Weir 101 (North Branch)	00101	5732 - 4317	Three tributaries join to form the fork of Muddy Creek. This weir is on the northernmost tributary.
Weir 102 (Blue Jay Branch)	00102	5134 - 4098	Middle tributary of north fork of Muddy Creek at intersection with old Muddy Creek Road.
Weir 103 (Williamson Branch)	00103	4744 - 4268	Southernmost tributary of the north fork of Muddy Creek at the intersection with new Muddy Creek Road.
C4	00004	5049 - 3159	Main branch of Muddy Creek at intersection with new Muddy Creek Road (upstream of first large culvert south of Mill Swamp Road).
Sellman Creek North Branch Weir	00105	7061 - 5878	On northern tributary of Sellman Creek.
Sellman Creek South Branch Weir	00106	6927 - 5829	The main (and southernmost) branch of Sellman Creek.
Fox Creek Weir	00107	6610 - 3780	500' from mouth of the small stream feeding Fox Cove.
Steinlein Creek Weir	00108	5951 - 2366	1,000' upstream of the mouth of Steinlein Creek.

Table 3. (Continued)

Station name	Computer station code	Rhode River grid location	Description
Corn field Watershed Weir	00109	6098 - 1988	Near the lower end of field-sized watershed composed of four corn fields. A branch of Steinlein Creek.
Forest Area Weir	00110	6025 - 3615	Field-sized watershed composed of only forest. Drains directly into Muddy Creek estuary. Northern portion of intensive study site number 2.
Pasture Watershed Weir	00111	6040 - 4723	Field-sized watershed composed only of pasture. A subwatershed of the north branch of Muddy Creek.
Main Branch of Muddy Creek Flux Section	00121	5195 - 3207	On the main (southern) fork of Muddy Creek just downstream of the last tributary about 600' downstream from Muddy Creek Road.
Fox Point Flux Section	00122	6927 - 3317	Mouth of the sediment trap of Muddy Creek between Fox Point and northern end of Corn Island.
Bear Neck Creek Flux Section	00123	8671 - 4293	Mouth of Bear Neck Creek.
Cadle Creek Flux Section	00124	9439 - 3171	Mouth of Cadle Creek.

Table 3. (Continued)

Present station name	Pre 1975 station name	Computer station code	Rhode River grid location	Description
Intensive study site 1	Forest ecology site #1	00001	6200 - 3000	Hog Island. Mature forest with only minimal disturbance historically (selective logging).
Intensive study site 2	Forest ecology site #2	00002	6100 - 3500	North branch of tidal Muddy Creek. Mature forest with only minimal disturbance historically.
Intensive study site 3	Forest ecology site #3	00003	6800 - 3800	Undisturbed for approximately 130 years, previously site of slave quarters and presettlement Indian village.
Intensive study site 4	Forest ecology site #4	00004	5200 - 4300	Mature forest prior to approximately 1830 - 1840, was intensively cultivated for many years.
Intensive study site 5	Forest ecology site #5	00005	6400 - 3400	Young forest on lands used for cultivated crops prior to about 1940 - 1945.
Intensive study site 6	Forest ecology site #6	00006	6600 - 4000	Young forest on lands used for cultivated crops prior to about 1940 - 1945.
Intensive study site 7	Forest ecology site #7	00007	5900 - 4000	Young forest on lands used for mule pasture prior to about 1940.

Table 3. (Continued)

Present station name	Pre 1975 station name	Computer station code	Rhode River grid location	Description
Intensive study site 8	Forest ecology site #8	00008	5900 - 4400	Phalaris grass meadow used for pasture prior to about 1940.
Intensive study site 9	Steven's farm field	00009	6800 - 6300	Old field, abandoned on or about 1972.
Intensive study site 10	CBCES lawns	00010	6050 - 4150	Lawns located around buildings, in duck yard, and along entrance road.
Intensive study site 11	Steinlein's farm field	00011	5800 - 2500	Old field, abandoned on or about 1968.
Intensive study site 12	Fox Point forest	00012	6900 - 3450	Mature forest on outer end of Fox Point. A residence was located there until recent times.
Intensive study site 14	NA	00014	6400 - 1900	Field-sized watershed composed of four corn fields. A subwatershed of the Steinlein Creek basin.
Intensive study site 15	Kirkpatrick-howat's pasture	00015	6100 - 4700	Field-sized watershed composed only of cow pasture. A subwatershed of the North Branch of Muddy Creek basin.
Intensive study site 16	Fox Cove marsh	00016	6500 - 3500	High marsh between Fox Point and dock.
Intensive study site 17	Hog Island marsh	00017	6200 - 3200	High marsh between Hog Island and Fox Point.

Table 3. (Continued)

Present station name	Pre 1975 station name	Computer station code	Rhode River grid location	Description
Intensive study site 18	Nixon's Nose	00018	7300 - 3100	High marsh on point east of Corn Island.
Intensive study site 19	Track site	00019	6100 - 2800	Low marsh on south shore near channel at mouth of Muddy Creek.
Intensive study site 20.	Kirkpatrick marsh	00020	6800 - 2800	High marsh southwest of Corn Island.
Intensive study site 21	North Branch swamp	00021	5700 - 4200	Freshwater swamp on North Branch of Muddy Creek just upstream of old entrance road.
Intensive study site 22	NA	00022	5900 - 2200	Freshwater swamp on Steinlein Creek upstream of weir.
Intensive study site 23	NA	00023	5900 - 4200	Pine forest on water tower hill west of Center.
Intensive study site 24	NA	00024	6400 - 3600	Pine forest east of Fox Point road.

Table 4. Principal Investigator Code List

Investigator	Affiliation	Code
Dr. Rita Colwell	Department of Microbiology University of Maryland College Park, Maryland 20742	001
Mr. Gary R. Chirlin	Chesapeake Bay Center for Environmental Studies*	027
Dr. David L. Correll	Chesapeake Bay Center for Environmental Studies*	002
Mr. Robert Cory	Oceanographer U.S. Geological Survey Chesapeake Bay Center for Environmental Studies*	003
Dr. Bert G. Drake	Radiation Biology Laboratory Smithsonian Institution 12441 Parklawn Drive Rockville, Maryland 20852	004
Dr. John H. Falk	Chesapeake Bay Center for Environmental Studies*	005
Dr. Maria A. Faust	Chesapeake Bay Center for Environmental Studies*	006
Mr. Gary M. Fellers	Department of Zoology University of Maryland College Park, Maryland 20742	028
Dr. W. Ronald Heyer	Department of Vertebrate Zoology Museum of Natural History Smithsonian Institution Washington, D.C. 20560	007
Ms. Amy Hiatt	Chesapeake Bay Center for Environmental Studies*	030
Mr. Daniel Higman	Chesapeake Bay Center for Environmental Studies*	008
Dr. James F. Lynch	Chesapeake Bay Center for Environmental Studies*	009

Table 4. (Continued)

Investigator	Affiliation	Code
Ms. Irene Magyar	Department of Zoology University of Maryland College Park, Maryland 20742	010
Mr. Albert D. Maizels	Suite 304, Columbia Medical Bldg. 1835 Eye Street, N.W. Washington, D.C. 20006	011
Ms. Patricia Melhop	Chesapeake Bay Center for Environmental Studies*	012
Dr. Eugene S. Morton	National Zoological Park Smithsonian Institution Washington, D.C. 20009	029
Dr. Jack W. Pierce	Sedimentology Department Museum of Natural History Smithsonian Institution Washington, D.C. 20560	013
Dr. Edward J. Pluhowski	U.S. Geological Survey Northeastern Region National Center, Mail Stap #43 Reston, Virginia 22092	014
Mr. Jan Reese	Box 298 St. Michaels, Maryland 21663	015
Dr. Raymond T. Rye	Department of Paleobiology Museum of Natural History Smithsonian Institution Washington, D.C. 20560	017
Dr. Howard H. Seliger	Department of Biology Johns Hopkins University 34th and North Charles Street Baltimore, Maryland 21218	018
Dr. William J. L. Sladen	School of Hygiene and Public Health Johns Hopkins University 615 N. Wolfe Street Baltimore, Maryland 21205	019

Table 4. (Continued)

Investigator	Affiliation	Code
Ms. Patricia A. Straat	Biospherics Inc. 4928 Wyaconda Road Rockville, Maryland 20852	030
Dr. J. Kevin Sullivan	Chesapeake Bay Center for Environmental Studies*	021
Dr. Theodore W. Suman	Anne Arundel Community College Arnold, Maryland	022
Ms. Marilyn Taub	Department of Zoology University of Maryland College Park, Maryland 20742	023
Mr. John P. Tregoe	1520 Langeford Road Baltimore, Maryland 21207	031
Dr. Dennis Whigham	Chesapeake Bay Center for Environmental Studies*	032
Dr. Tung-Lin Wu	Chesapeake Bay Center for Environmental Studies*	026

* Chesapeake Bay Center for Environmental Studies
Smithsonian Institution
Route 4, Box 622
Edgewater, Maryland 21037

Table 5. Research Funding Codes.

Source	Code
Chesapeake Bay Center direct federal funding	001
Smithsonian Institution Environmental Sciences Program	002
Smithsonian Research Foundation	003
Smithsonian Fluid Research Fund	004
National Science Foundation	005
Environmental Protection Agency	006

Table 6. Analytical Techniques Code List

Parameter and Units	Technique	Code
Flow rate (liters/sec.)	Monitor depth in stilling well of water backed up by sharp-crested V-notch weir (Correll, Pierce and Faust, 1975).	031
Flow rate (liters/sec.)	Monitor tidal current velocity with electromagnetic current meters. Correct for cross-sectional areas with tide gauge-operated cam and potentiometer.	032
Total flow (liters)	Flow rate integrated over time.	033
Water temperature (degrees C)	Mercury thermometer	034
Water temperature (degrees C)	Thermistor	035
pH	Indicator dyes and color comparator	036
pH	Hydrogen electrode	037
Turbidity (Jackson units)	Scattering of columnated white light with Hach turbidimeter.	038
Turbidity (meters)	Secci disc	039
Turbidity (% transmission)	Transmission of white light.	040
Turbidity (% transmission)	Transmission of green light.	041
Light penetration (absorbance)	Measurement of vertical absorbance of incident sunlight in water column.	042
Total and mineral suspended particulates (mg/liter)	Gravimetric on millipore HA filters before and after firing organics (Correll, Pierce and Faust, 1975).	043

Table 6. (Continued)

Parameter and Units	Technique	Code
Total N (µg N/liter)	Sum of organic plus ammonia N (by Kjeldahl) and nitrate plus nitrite N by reduction to nitrite and colorimetry (Correll, Pierce and Faust, 1975).	044
Organic N (including NH_3 (µg N/liter)	Kjeldahl distillation and nesslerization after digestion with H_2SO_4.	045
Ammonia N (µg N/liter)	Oxidation to nitrite and colorimetry.	046
Nitrite + Nitrate N (µg N/liter)	Reduction to nitrite and colorimetry.	047
Nitrite N (µg N/liter)	Colorimetry (by reaction with a diazo dye).	048
Total P (µg P/liter)	Digestion with perchloric acid and colorimetry (ammonium molybdate and stannous chloride reduction.	049
Dissolved total P (µg P/liter)	Total P on millipore HA filtrate.	050
Inorganic P (µg P/liter)	Colorimetry on whole water with no digestion.	
Dissolved inorganic P (µg P/liter)	Colorimetry on millipore HA filtrate with no digestion.	
Total organic matter (g cal./liter)	Wet digestion with chromic acid and titration.	051
Cations (Ni, Cu, Zn, Pb, Cr, Cd, Mn, Fe, K, Ca, Mg)	500 ml sample plus 5 ml concentrate. HNO_3 concentrated to 10 ml by boiling. Assayed by atomic absorption with internal standards.	052
Total and fecal coliform bacteria (MPN/100 ml)	As described in Standard Methods (1971).	053

Table 6. (Continued)

Parameter and Units	Technique	Code
Total and fecal streptococci (#/100 ml)	As described in Standard Methods (1971) and by Millipore Corp. membrane filter technique.	054
Salmonella (#/100 ml)	As described in Standard Methods (1971) and confirmation including serotyping.	055
Total viable heterotrophs (#/ml)	Standard plate counts.	056
Salinity and conductivity (0/00 mmhos)	Normally determined with an induction type salinometer. Sometimes by titration of halogen ions.	057
Organic carbon (mg C/liter)	Combustion at 550^{0} for 10' purification and weighing of released CO_2.	058
Dissolved oxygen (mg/liter)	Clark-type oxygen electrode or by modified Winkler titration.	059
Chlorophyll a (μg/liter)	Fluorometric assay of 90% acetone extracts by three filter methods before and after acidification (Loftus and Carpenter, 1971).	060
Adult and nauplii copepods, rotifers, polychaetes, other macrozooplankton, tintinnids, other microzooplankton	Identified and counted under the microscope with aid of a Sedwick-rafter cell. Fixed in field with Bouin's fixative.	061
Leaf litter parameters	Collected in 1 m^2 boxes, sorted to species, dried 24 hours at 60^{0}, weighed and area measured with a CdS diode leaf area meter.	062

Table 6. (Continued)

Parameter and Units	Technique	Code
Small mammal populations	Animals are trapped with a grid of 100 Sherman live traps at each site, left permanently in place. Mammals are trapped for three nights per month at each site. Animals are identified, permanently marked for future recognititon, weighed, sexed, and their reproductive condition noted. Minimal population densities are estimated from the ratio of trapped animals which previously have been captured and marked: number of unmarked animals.	063
Ant populations	Sweep sampling, litter sampling, baiting, soil coring and general collecting of ants; observation of behavior; monitoring of temperature and humidity in air and soil; mapping of colony location, cover objects, vegetation. Study sites to be marked with painted sections of conduits and small plastic surveyor's flags. Humidity sensors and thermistor probes to be implanted in soil on a long-term basis; possibility of multiplex data recorder to be operated at one or more sites on a long-term basis.	064
Understory arthropods	Monthly sweep samples of understory arthropods; arthropods later sorted to species, measured, and assigned to trophic grouping. Foliage density measured seasonally.	065
Leaf litter arthropods	Sampling. Leaf litter is removed from within a 1/10 sq. meter sampling frame from each of 10 subsite sampling stations at each site (total of 1 sq. meter of leaf litter per site per month). The litter is collected in plastic bags. The subsite sampling stations for each of the three major sites are determined from a computer generated table of random numbers.	066

Table 6. (Continued)

Parameters and Units	Technique	Code
Leaf litter arthropods	The organisms are extracted from the leaf litter into alcohol through the use of Berlese funnels. Leaf litter from each subsample site is placed into one funnel (a total of 10 funnels for each of the three sites). Incandescent light bulbs (40 - 60 watts) are used for drying the leaf litter. The alcohol jars containing the arthropods are removed from the funnels at the end of a three week period. The arthropods are sorted and studied under a stereo dissecting microscope. This part of the project is done at Anne Arundel Community College.	066
Lawn project	A combination of lawn clipping collection, sweep sampling, soil coring, and vacuum sampling are used. Invertebrates are sorted by species.	067
Squirrel populations	Intensive live trapping at each site was conducted following prebaiting unset traps for a week. Trapped animals were ear tagged and tail clipped for field siting. (Flyger, 1959).	068
Soil temperature and moisture	At each soil sampling station moisture and temperature probes were buried at depths of 5, 15, 30, and 75 cm with electrical leads connected to sockets in a junction box aboveground for manual readings. Delmhorst gypsum block moisture sensors and a Delmhorst, Model KS-1, moisture testor are used. The ranges of the testor have been modified to allow zeroing against 0, 100, or 10,000 ohms resistance. In situ calibration curves for each probe were constructed by gravimetric moisture determinations from soil cores at the appropriate depths under various	069

Table 6. (Continued)

Parameters and Units	Technique	Code
Soil temperature and moisture	moisture conditions. Temperature was measured with Fenwal precision unicurve thermistors, coated with epoxy cement and resistance was read with a battery powered Fluke digital multimeter. During intensive study periods reading of probes are made daily. At other times they are read approximately weekly.	069
Soil pH	pH was measured with a hydrogen electrode system after suspension of an aliquot of soil core in one ml of distilled water per g of soil and centrifugation	070
Phosphorus, available orthophosphate, total orthophosphate acid labile, and total phosphorus in soils	Total phosphorus, acid labile, and orthophosphate were determined as described by Correll and Miklas (1975). Total phosphorus was determined on whole soil only. Orthophosphate was determined on whole soil, a 1 M K Cl extract, and on a distilled water extract. The extraction procedure is to extract one g of soil with 15 ml distilled water, then with 10 ml distilled water, removing soil from extraction liquid by centrifugation. The extracted soil is then reextracted in the same manner but with 1 M K Cl.	071
Total ammonia and nitrate in soils, exchangeable ammonia and nitrate in soils, and organic nitrogen	Total Kjeldahl nitrogen is determined by digestion with sulfuric acid and hydrogen peroxide, distillation and Nesslerization (Martin, 1972). Total ammonia is determined by Kjeldahl distillation from undigested but alkaline samples plus Nesslerization. Water soluble ammonia is determined as above but on distilled water extracts of soil.	072

Table 6. (Continued)

Parameters and Units	Technique	Code
Total ammonia and nitrate in soils, exchangeable ammonia and nitrate in soils, and organic nitrogen	Exchangeable ammonia is determined on 1 M K Cl extracts of previously water extracted soils. Nitrate is determined by the modified Conway microdiffusion method (Stanford, et al (1973)).	072
Corn and weed populations, soil coverage, and plant nutrient	Corn plant heights and total plant soil coverage are measured in the cornfield watershed at approximately 10 day intervals during the growth season. Heights were measured at five stations on randomly selected plants. Soil coverage was measured by taking vertical color pictures from an elevation of 6 meters. Percent leaf coverage was estimated by projecting the color slides onto a grid with randomly selected intercepts premarked. The percentage of intercepts which fell on plants was then used to calculate soil coverage (point-intercept method). At approximatley 20 day intervals during the growing season and at harvest time corn plants were excavated at five stations. They were separated into roots, stems, leaves, flowers, corn kernels, and corn cobs for dry weight determinations, total Kjeldahl nitrogen content, and total phosphorus determinations. Nutrient assays were done by the same techniques as for soils. In September aboveground weed biomass was measured as numbers and dry weight by species in three 25 m^2 plots at each of the ten stations. Three random 0.5 x 0.5 m subplots were sampled.	073

Table 6. (Continued)

Parameters and Units	Technique	Code
Tree coring and populations	Populations of seedlings, saplings, and mature tree species were surveyed by laying out quadrats, identifying and tagging individuals, measuring their heights, diameters, and ages (by morphology or by coring).	074
Bottom sediment sampling	At each station three Pflueger cores were taken unless the bottom was too hard in which case three Ekman Dredge samples were taken. These samples were analyzed for percent organics, mineralogy, and mineral particle size distribution. In the case of cores these parameters were measured as vertical profiles.	075
Submerged plant populations	A common steel garden rake is used to collect plants by scrapping the surface of the bottom sediments in random paths in areas of 0.6 to 1.2 meters depth. Sampling stations are selected in areas of shallows relatively protected from wave action. A total area of bottom of from 10 to 100 square meters per station is sampled, depending upon plant abundance. Samples of plants from each station are sorted by species, counted, dried to constant weight at 60^{0} C in an oven and weighed. On site visual observations are also recorded of presence or absence of plants.	076

Table 6. (Continued)

Parameters and Units	Technique	Code
Herbicides in soils, streams, bay waters, and sediment	At each station 15 ℓ of surface waters are taken and 50 g $CaCl_2$ are added. The sample is allowed to stand overnight and is then filtered through a Gilman, type A, glass fiber filter. The filter is then treated with anhydrous sodium sulfate and extracted with benzene and methylene dichloride. The filtrate is extracted with benzene and then with methylene dichloride. Sediment cores (3) were taken at each station with a Pflueger corer. In cases of hard bottom conditions, a set of three Ekman dredge samples were taken. These sediment samples were stored on ice until they could be segmented (cores). Subsamples of 10 g weight were then mixed with 10 g anhydrous sodium sulfate and extracted with benzene and methylene dichloride.	077
Mineralogy and sand/silt/clay fractionation	Soils are fractionated into sand, silt, and clay by screening and hydrodynamic methods and each fraction is weighed. The amount of organics is determined by firing. Mineralogy is determined on silt and clay fractions by X-ray diffraction. Preparation is described by Carroll (1970). Soils are analyzed for free-iron oxides and allophane (Jackson, 1956).	078
In vivo chlorophyll a concentrations	Between stations the boat was operated at an even speed and surface waters were pumped continuously from a depth of 0.5 m through a flow-thru door (110-880A) on a Turner model 111 flurometer. The flurometer had a F4T4-B1 blue excitation lamp, a Corning 5-60 excitation filter, a Corning 2-64 emission filter and a red sensitive	079

Table 6. (Continued)

Parameters and Units	Technique	Code
In vivo chlorophyll a	photomultiplier tube (R-136). The signal was recorded on a strip chart. A sample of known volume was taken at a marked time position on the chart, filtered through a Millipore HA filter, and the filter was dissolved in 90% acetone saturated with $Mg\ CO_3$ and stored in the dark. The acetone extract was then analyzed for chlorophyll a by the method of Loftus and Carpenter (1971). The average in vivo fluorometer response was then determined by integration of the transect recording and the concentration of chlorophyll a was determined by multiplying times the µg in vitro chlorophyll a per in vivo response unit.	079
Plankton primary production and phosphorus uptake by double label technique	Inorganic carbon and orthophosphate uptake are determined by simultaneous exposure to C-14 labeled HCO_3 and P-32 labeled PO_4 in light and dark bottles, incubated in a running water estuarine incubator exposed to sunlight. Time course of uptake for one hour is measured.	080

References for Technique Codes

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Table 7. Parameters Measured in Estuarine Work.

Salinity (ppt)

Category: 210

Format: XX.XX

Sample type: GRB

Technique code: 057

Investigator code: 002

Funding code: 006

File ID: RHO

Computer station code	Station name	Time span	Time frequency
00021	WRO	Feb. - Apr. May - July Aug. - Dec.	Twice a week Once a week Every two weeks
00022	WR1A	"	"
022.4	WR1B	"	"
00023	WR1C	"	"
00028	RR2A	"	"
028.4	RR2B	"	"
00029	RR3A	"	"
029.4	RR3B	"	"
00030	RR4A	"	"
030.2	RR4B	"	"
030.4	RR4C	"	"
00031	C9	Feb. - Dec.	Once a week
00032	C8	"	"

Table 7. (Continued)

Salinity (ppt)

Computer station code	Station name	Time span	Time frequency
00033	C7	Feb. - Dec.	Once a week
00034	C6	"	"
00035	C5	"	"
00036	SEL	"	"
036.6	BNA	Feb. - July Aug. - Dec.	Once a week Every two weeks
036.8	BNB	"	"
00037	BNC	"	"
037.8	WMA	"	"
00038	WMB	"	"
038.2	WMC	"	"
038.8	CCA	"	"
00039	CCB	"	"
039.2	CCC	"	"

Table 7. (Continued)

Salinity (ppt)

Category: 210

Format: XX.XX

Sample type: GRB

Technique code: 057

Investigator code: 002

Funding code: 006

File ID: 4RI

Computer station code	Station name	Time span	Time frequency
00028	28	Apr. - Oct.	Once a month
028.4	28.4	"	"
00029	29	"	"
030.2	30.2	"	"
031.5	31.5	"	"
00071	71	"	Once a season
00072	72	"	"
00073	73	"	"
00074	74	"	"
00075	75	"	"
00076	76	"	"
00077	77	"	"
00078	78	"	"

Table 7. (Continued)

Salinity (ppt)

Computer station code	Station name	Time span	Time frequency
00081	81	Apr. - Oct.	Once a season
00082	82	"	"
00083	83	"	"
00084	84	"	"

Table 7. (Continued)

Temperature (^{o} C)

Category: 212

Format: XX.XX

Sample type: FLX

Technique code: 035

Investigator code: 002

Funding code: 006

File ID: RHO

Computer station code	Station name	Time span	Time frequency
00021	WRO	Feb. - Apr. May - July Aug. - Dec.	Twice a week Once a week Every two weeks
00022	WR1A	"	"
022.4	WR1B	"	"
00023	WR1C	"	"
00028	RR2A	"	"
028.4	RR2B	"	"
00029	RR3A	"	"
029.4	RR3B	"	"
00030	RR4A	"	"
030.2	RR4B	"	"
030.4	RR4C	"	"
00031	C9	Feb. - Dec.	Once a week
00032	C8	"	"

Table 7. (Continued)

Temperature (^{o} C)

Computer station code	Station name	Time span	Time frequency
00033	C7	Feb. - Dec.	Once a week
00034	C6	"	"
00035	C5	"	"
00036	SEL	"	"
036.6	BNA	Feb. - July Aug. - Dec.	Once a week Every two weeks
036.8	BNB	"	"
00037	BNC	"	"
037.8	WMA	"	"
00038	WMB	"	"
038.2	WMC	"	"
038.8	CCA	"	"
00039	CCB	"	"
039.2	CCC	"	"

Table 7. (Continued)

Temperature (^{o} C)

Category: 212

Format: XX.XX

Sample type: GRB

Technique code: 035

Investigator code: 002

Funding code: 006

File ID: 4RI

Computer station code	Station name	Time span	Time frequency
00028	28	Apr. - Oct.	Once a month
028.4	28.4	"	"
00029	29	"	"
030.2	30.2	"	"
031.5	31.5	"	"
00071	71	"	Once a season
00072	72	"	"
00073	73	"	"
00074	74	"	"
00075	75	"	"
00076	76	"	"
00077	77	"	"
00078	78	"	"

Table 7. (Continued)

Temperature (^{o} C)

Computer station code	Station name	Time span	Time frequency
00081	81	Apr. - Oct.	Once a season
00082	82	"	"
00083	83	"	"
00084	84	"	"

Table 7. (Continued)

pH

Category: 213

Format: XX.X

Sample type: GRB

Technique code: 036

Investigator code: 002

Funding code: 005

File Id: RHO

Computer station code	Station name	Time span	Time frequency
00021	WRO	Feb. - July Aug. - Dec.	Once a week Every two weeks
022.4	WR1B	"	"
028.4	RR2B	"	"
029.4	RR3B	"	"
030.2	RR4B	"	"
00031	C9	Feb. - July	Once a week
00032	C8	"	"
00033	C7	"	"
00034	C6	"	"
00035	C5	"	"
00036	SEL	"	"

Table 7. (Continued)

pH

Computer station code	Station name	Time span	Time frequency
036.6	BNB	Feb. - July Aug. - Dec.	Once a week Every two weeks
00038	WMB	"	"
00039	CCB	"	"

Table 7. (Continued)

pH

Category: 213

Format: XX.X

Sample type: HIT

Technique code: 036

Investigator code: 002

Funding code: 005

File ID: RHO

Computer station code	Station name	Time span	Time frequency
00026	WR1T	Feb. - July Aug. - Dec.	Once a weeks Every two weeks
00040	RR2T	"	"
00041	RR3T	"	"
00042	RR4T	"	"
00043	BNT	"	"
00044	WMT	"	"
00045	CCT	"	"

Table 7. (Continued)

Turbidity (Jackson units)

Category: 220

Format: XXX

Sample type: GRB

Technique code: 038

Investigator code: 002

Funding code: 006

File ID: RHO

Computer station code	Station name	Time span	Time frequency
00021	WRO	Feb. - July Aug. - Dec.	Once a week Every two weeks
022.4	WR1B	"	"
028.4	RR2B	"	"
029.4	RR3B	"	"
030.2	RR4B	"	"
00031	C9	Feb. - Dec.	Once a week
00032	C8	"	"
00033	C7	"	"
00034	C6	"	"
00035	C5	"	"
00036	SEL	"	"

Table 7. (Continued)

Turbidity (Jackson units)

Computer station code	Station name	Time span	Time frequency
036.8	BNB	Feb. - July Aug. - Dec.	Once a week Every two weeks
00038	WMB	"	"
00039	CCB	"	"

Table 7. (Continued)

Turbidity (Jackson units)

Category: 220

Format: XXX

Sample type: HIT

Technique code: 038

Investigator code: 002

Funding code: 005

File ID: RHO

Computer station code	Station name	Time span	Time frequency
00026	WR1T	Feb. - July Aug. - Dec.	Once a week Every two weeks
00040	RR2T	"	"
00041	RR3T	"	"
00042	RR4T	"	"
00043	BNT	"	"
00044	WMT	"	"
00045	CCT	"	"

Table 7. (Continued)

Turbidity (Jackson units)

Category: 220

Format: XXX

Sample type: GRB

Technique code: 038

Investigator code: 002

Funding code: 006

File ID: 4RI

Computer station code	Station name	Time span	Time frequency
00028	28	Apr. - Oct.	Once a month
028.4	28.4	"	"
00029	29	"	"
030.2	30.2	"	"
031.5	31.5	"	"
00071	71	"	Once a season
00072	72	"	"
00073	73	"	"
00074	74	"	"
00075	75	"	"
00076	76	"	"
00077	77	"	"
00078	78	"	"

Table 7. (Continued)

Turbidity (Jackson units)

Computer station code	Station name	Time span	Time frequency
00081	81	Apr. - Oct.	Once a season
00082	82	"	"
00083	83	"	"
00084	84	"	"
00091	91	June	Once a year
00092	92	"	"
00093	93	"	"
00094	94	"	"
00095	95	"	"
00096	96	"	"

Table 7. (Continued)

Total suspended solids and mineral suspended solids (mg/ℓ)

Category: 250

Format: XXXX.X, XXXX.X

Sample type: GRB

Technique code: 043

Investigator code: 013

Funding code: 006

File ID: 4RI

Computer station code	Station name	Time span	Time frequency
00028	28	Apr. - Oct.	Once a month
028.4	28.4	"	"
00029	29	"	"
030.2	30.2	"	"
031.5	31.5	"	"
00071	71	"	Once a season
00072	72	"	"
00073	73	"	"
00074	74	"	"
00075	75	"	"
00076	76	"	"
00077	77	"	"
00078	78	"	"

Table 7. (Continued)

Total suspended solids and mineral suspended solids (mg/ℓ)

Computer station code	Station name	Time span	Time frequency
00081	81	Apr. - Oct.	Once a season
00082	82	"	"
00083	83	"	"
00084	84	"	"
00091	91	June	Once a year
00092	92	"	"
00093	93	"	"
00094	94	"	"
00095	95	"	"
00096	96	"	"

Table 7. (Continued)

Mineral size distribution - sand, silt, clay (%)

Category: 251

Format: XX.XX, XX.XX, XX.XX

Sample type: SED

Technique code: 078

Investigator code: 013

Funding code: 006

File ID: 4RI

Computer station code	Station name	Time span	Time frequency
00028	28	Apr. - Oct.	Once a month
028.4	28.4	"	"
00029	29	"	"
030.2	30.2	"	"
031.5	31.5	"	"
00071	71	"	Once a season
00072	72	"	"
00073	73	"	"
00074	74	"	"
00075	75	"	"
00076	76	"	"
00077	77	"	"
00078	78	"	"

Table 7. (Continued)

Mineral size distribution - sand, silt, clay (%)

Computer station code	Station name	Time span	Time frequency
00081	81	Apr. - Oct.	Once a season
00082	82	"	"
00083	83	"	"
00084	84	"	"
00091	91	June	Once a year
00092	92	"	"
00093	93	"	"
00094	94	"	"
00095	95	"	"
00096	96	"	"

Table 7. (Continued)

Organics (%)

Category: 252

Format: XX.XX

Sample type: SED

Technique code: 078

Investigator code: 013

Funding code: 006

File ID: 4RI

Computer station code	Station name	Time span	Time frequency
00028	28	Apr. - Oct.	Once a month
028.4	28.4	"	"
00029	29	"	"
030.2	30.2	"	"
031.5	31.5	"	"
00071	71	"	Once a season
00072	72	"	"
00073	73	"	"
00074	74	"	"
00075	75	"	"
00076	76	"	"
00077	77	"	"
00078	78	"	"

Table 7. (Continued)

Organics (%)

Computer station code	Station name	Time span	Time frequency
00081	81	Apr. - Oct.	Once a season
00082	82	"	"
00083	83	"	"
00084	84	"	"
00091	91	June	Once a year
00092	92	"	"
00093	93	"	"
00094	94	"	"
00095	95	"	"
00096	96	"	"

Table 7. (Continued)

Mineralogy (%)

Category:			Format:
	255	Montmorillonite	XX.XX, XX.XX
	256	Illite	XX.XX, XX.XX
	257	Kaolinite	XX.XX, XX.XX
	258	Gibbsite	XX.XX, XX.XX
	259	Chlorite	XX.XX, XX.XX
	260	Quartz	XX.XX, XX.XX
	261	K-Spar	XX.XX, XX.XX
	262	Plagiclase	XX.XX, XX.XX
	263	Talc	XX.XX, XX.XX
	264	Amph.	XX.XX, XX.XX
	265	Clin.	XX.XX, XX.XX
	266	Calcite	XX.XX, XX.XX
	267	Dolomite	XX.XX, XX.XX

Sample type: GRB and SED

Technique code: 078

Investigator code: 013

Funding code: 006

File ID: 4RI

Computer station code	Station name	Time span	Time frequency
00028	28	Apr. - Oct.	Once a month
028.4	28.4	"	"
00029	29	"	"
030.2	30.2	"	"
031.5	31.5	"	"
00071	71	"	Once a season
00072	72	"	"
00073	73	"	"
00074	74	"	"

Table 7. (Continued)

Mineralogy (%)

Computer station code	Station name	Time span	Time frequency
00075	75	Apr. - Oct.	Once a season
00076	76	"	"
00077	77	"	"
00078	78	"	"
00081	81	"	"
00082	82	"	"
00083	83	"	"
00084	84	"	"
00091	91	June	Once a year
00092	92	"	"
00093	93	"	"
00094	94	"	"
00095	95	"	"
00096	96	"	"

Table 7. (Continued)

Nitrate + nitrite, ammonia + amino acid, Kjeldahl nitrogen, and nitrite (μg/liter)

Category: 311

Format: X.XX EXX, X.XX EXX, X.XX EXX, X.XX EXX

Sample type: GRB

Technique code: 046, 047, and 048

Investigator code: 002

Funding code: 005

File ID: RHO

Computer station code	Station name	Time span	Time frequency
00021	WRO	Feb. - July Aug. - Dec.	Once a week Every two weeks
022.4	WR1B	"	"
028.4	RR2B	"	"
029.4	RR3B	"	"
030.2	RR4B	"	"
00031	C9	Feb. - Dec.	Once a week
00032	C8	"	"
00033	C7	"	"
00034	C6	"	"
00035	C5	"	"
00036	SEL	"	"

Table 7. (Continued)

Nitrate + nitrite, ammonia + amino acid, Kjeldahl nitrogen, and nitrite (μg/liter)

Computer station code	Station name	Time span	Time frequency
036.8	BNB	Feb. - July Aug. - Dec.	Once a week Every two weeks
00038	WMB	"	"
00039	CCB	"	"

Table 7. (Continued)

Nitrate + nitrite, ammonia + amino acid, Kjeldahl nitrogen, and nitrite (μg/liter)

Category: 311

Format: X.XX EXX, X.XX EXX, X.XX EXX, X.XX EXX

Sample type: HIT

Technique code: 046, 047, and 048

Investigator code: 002

Funding code: 005

File ID: RHO

Computer station code	Station name	Time span	Time frequency
00026	WR1T	Feb. - July Aug. - Dec.	Once a week Every two weeks
00040	RR2T	"	"
00041	RR3T	"	"
00042	RR4T	"	"
00043	BNT	"	"
00044	WMT	"	"
00045	CCT	"	"

Table 7. (Continued)

Total phosphorus (μg/liter)

Category: 320

Format: X.XX EXX

Sample type: GRB

Technique code: 049

Investigator code: 002

Funding code: 005

File ID: RHO

Computer station code	Station name	Time span	Time frequency
00021	WRO	Feb. - July Aug. - Dec.	Once a week Every two weeks
022.4	WR1B	"	"
028.4	RR2B	"	"
029.4	RR3B	"	"
030.2	RR4B	"	"
00031	C9	Feb. - Dec.	Once a week
00032	C8	"	"
00033	C7	"	"
00034	C6	"	"
00035	C5	"	"
00036	SEL	"	"

Table 7. (Continued)

Total phosphorus (μg/liter)

Computer station code	Station name	Time span	Time frequency
036.8	BNB	Feb. - July Aug. - Dec.	Once a week Every two weeks
00038	WMB	"	"
00039	CCB	"	"

Table 7. (Continued)

Total phosphorus (μg/liter)

Category: 320

Format: X.XX EXX

Sample type: HIT

Technique code: 049

Investigator code: 002

Funding code: 005

File ID: RHO

Computer station code	Station name	Time span	Time frequency
00026	WR1T	Feb. - July Aug. - Dec.	Once a week Every two weeks
00040	RR2T	"	"
00041	RR3T	"	"
00042	RR4T	"	"
00043	BNT	"	"
00044	WMT	"	"
00045	CCT	"	"

Table 7. (Continued)

Dissolved inorganic phosphorus, dissolved total phosphorus, and inorganic phosphorus (μg/liter)

Category: 321

Format: X.XX EXX, X.XX EXX, X.XX EXX

Sample type: GRB

Technique code: 050

Investigator code: 002

Funding code: 005

File ID: RHO

Computer station code	Station name	Time span	Time frequency
00021	WRO	Feb. - July Aug. - Dec.	Once a week Every two weeks
022.4	WR1B	"	"
028.4	RR2B	"	"
029.4	RR3B	"	"
030.2	RR4B	"	"
00031	C9	Feb. - Dec.	Once a week
00032	C8	"	"
00033	C7	"	"
00034	C6	"	"
00035	C5	"	"
00036	SEL	"	"

Table 7. (Continued)

Dissolved inorganic phosphorus, dissolved total phosphorus, and inorganic phosphorus (μg/liter)

Computer station code	Station name	Time span	Time frequency
036.8	BNB	Feb. - July Aug. - Dec.	Once a week Every two weeks
00038	WMB	"	"
00039	CCB	"	"

Table 7. (Continued)

Dissolved inorganic phosphorus, dissolved total phosphorus, and inorganic phosphorus (µg/liter)

Category: 321

Format: X.XX EXX, X.XX EXX, X.XX EXX

Sample type: HIT

Technique code: 050

Investigator code: 002

Funding code: 005

File ID: RHO

Computer station code	Station name	Time span	Time frequency
00026	WR1T	Feb. - July Aug. - Dec.	Once a week Every two weeks
00040	RR2T	"	"
00041	RR3T	"	"
00042	RR4T	"	"
00043	BNT	"	"
00044	WMT	"	"
00045	CCT	"	"

Table 7. (Continued)

Organic carbon - combustion (mg/liter)

Category: 330

Format: X.XX EXX

Sample type: GRB

Technique code: 058

Investigator code: 002

Funding code: 005

File ID: RHO

Computer station code	Station name	Time span	Time frequency
00021	WR0	Feb. - July Aug. - Dec.	Once a week Every two weeks
022.4	WR1B	"	"
028.4	RR2B	"	"
029.4	RR3B	"	"
030.2	RR4B	"	"
00031	C9	Feb. - Dec.	Once a week
00032	C8	"	"
00033	C7	"	"
00034	C6	"	"
00035	C5	"	"
00036	SEL	"	"
036.8	BNB	Feb. - July Aug. - Dec.	Once a week Every two weeks
00038	WMB	"	"
00039	CCB	"	"

Table 7. (Continued)

Organic carbon - combustion (mg/liter)

Category: 330

Format: X.XX EXX

Sample type: HIT

Technique code: 058

Investigator code: 002

Funding code: 005

File ID: RHO

Computer station code	Station name	Time span	Time frequency
00026	WR1T	Feb. - July Aug. - Dec.	Once a week Every two weeks
00040	RR2T	"	"
00041	RR3T	"	"
00042	RR4T	"	"
00043	BNT	"	"
00044	WMT	"	"
00045	CCT	"	"

Table 7. (Continued)

Dissolved oxygen (mg/liter)

Category: 340

Format: XX.XX

Sample type: GRB

Technique code: 059

Investigator code: 018

Funding code: 005

File ID: RHO

Computer station code	Station name	Time span	Time frequency
00021	WRO	Feb. - Apr. May - July Aug. - Dec.	Twice a week Once a week Every two weeks
00022	WR1A	"	"
022.4	WR1B	"	"
00023	WR1C	"	"
00028	RR2A	"	"
028.4	RR2B	"	"
00029	RR3A	"	"
029.4	RR3B	"	"
00030	RR4A	"	"
030.2	RR4B	"	"
030.4	RR4C	"	"
036.6	BNA	"	"
036.8	BNB	"	"

Table 7. (Continued)

Dissolved oxygen (mg/liter)

Computer station code	Station name	Time span	Time frequency
00037	BNC	Feb. - Apr. May - July Aug. - Dec.	Twice a week Once a week Every two weeks
037.8	WMA	"	"
00038	WMB	"	"
038.2	WMC	"	"
038.8	CCA	"	"
00039	CCB	"	"
039.2	CCC	"	"

Table 7. (Continued)

Dissolved oxygen (mg/liter)

Category: 340

Format: XX.XX

Sample type: GRB

Technique code: 059

Investigator code: 002

Funding code: 005

File ID: RHO

Computer station code	Station name	Time span	Time frequency
00031	C9	Feb. - Dec.	Once a week
00032	C8	"	"
00033	C7	"	"
00034	C6	"	"
00035	C5	"	"
00036	SEL	"	"

Table 7. (Continued)

Herbicides (μg/ℓ)

Category:		Format:
361	Atrazine	X.XX EXXX
362	Linuron	X.XX EXXX
364	Trifluralin	X.XX EXXX
370	Alachlor	X.XX EXXX

Sample type: GRB and SED

Technique code: 077

Investigator code: 026

Funding code: 006

File ID: 4RI

Computer station code	Station name	Time span	Time frequency
00028	28	Apr. - Oct.	Once a month
028.4	28.4	"	"
00029	29	"	"
030.2	30.2	"	"
031.5	31.5	"	"
00071	71	"	Once a season
00072	72	"	"
00073	73	"	"
00074	74	"	"
00075	75	"	"
00076	76	"	"
00077	77	"	"
00078	78	"	"

Table 7. (Continued)

Herbicides (μg/ℓ)

Computer station code	Station name	Time span	Time frequency
00081	81	Apr. - Oct.	Once a season
00082	82	"	"
00083	83	"	"
00084	84	"	"
00091	91	June	Once a year
00092	92	"	"
00093	93	"	"
00094	94	"	"
00095	95	"	"
00096	96	"	"

Table 7. (Continued)

Chlorophyll a (ug/liter)

Category: 410

Format: X.XX EXX, X.XX EXX, X.XX EXX

Sample type: HIT

Technique code: 060

Investigator code: 018

Funding code: 006

File ID: RHO

Computer station code	Station name	Time span	Time frequency
0040T	RR2T	June - Oct.	Once a month
0041T	RR3T	"	"
0042T	RR4T	"	"
031.5	RR8.5	"	"

Table 7. (Continued)

Chlorophyll a (μg/liter) and chlorophyll a in vivo fluorescence (μg/liter)

Category: 410

Format: X.XX EXX, X.XX EXX, X.XX EXX

Sample type; HIT

Technique code: 060 and 079

Investigator code: 018

Funding code: 006

File ID: 4RI

Computer station code	Station name	Time span	Time frequency
0028T	28T	June - Oct.	Once a month
28.4T	28.4T	"	"
0029T	29T	"	"
31.5T	31.5T	"	"
0071T	71T	"	Once a season
0072T	72T	"	"
0073T	73T	"	"
0074T	74T	"	"
0075T	75T	"	"
0076T	76T	"	"
0091T	91T	June	Once a year
0092T	92T	"	"
0093T	93T	"	"
0094T	94T	"	"

Table 7. (Continued)

Aquatic plants (mg)

Category:		Format:
420	A - Potamogeton perfoliatus	XXXX, XXXXXX
	B - Potamogeton pectinatus	XXXX, XXXXXX
	C - Myriophyllum spicatum	XXXX, XXXXXX
	D - Ruppia maritima	XXXX, XXXXXX
	E - Zannichellia palustris	XXXX, XXXXXX
	F - Elodea canadensis	XXXX, XXXXXX
	G - Zosteria maritima	XXXX, XXXXXX

Sample type: GRB

Technique code: 076

Investigator code: 002

Funding code: 006

File ID: 4RI

Computer station code	Station name	Time span	Time frequency
00028	28	June - Oct.	Once a month
028.4	28.4	"	"
00029	29	"	"
030.2	30.2	"	"
031.5	31.5	"	"

Table 7. (Continued)

Fecal coliform (#/100 ml)

Category: 710

Format: X.XX EXX

Sample type: GRB

Technique code: 053

Investigator code: 006

Funding code: 005

File ID: RHO

Computer station code	Station name	Time span	Time frequency
00021	WRO	Feb. - July Aug. - Dec.	Once a week Every two weeks
00028	RR2A	"	"
00029	RR3A	"	"
00030	RR4A	"	"
030.4	RR4C	"	"
00031	C9	Feb. - Dec.	Once a week
00032	C8	"	"
00033	C7	"	"
00034	C6	"	"
00035	C5	"	"
00036	SEL	"	"
036.8	BNB	Feb. - July Aug. - Dec.	Once a week Every two weeks
00038	WMB	"	"
00039	CCB	"	"

Table 7. (Continued)

Fecal streptococci (#/100 ml)

Category: 712

Format: X.XX EXX

Sample type: GRB

Technique code: 054

Investigator code: 006

Funding code: 005

File ID: RHO

Computer station code	Station name	Time span	Time frequency
00021	WRO	Feb. - July Aug. - Dec.	Once a week Every two weeks
00028	RR2A	"	"
00029	RR3A	"	"
00030	RR4A	"	"
030.4	RR4C	"	"
00031	C9	Feb. - Dec.	Once a week
00032	C8	"	"
00033	C7	"	"
00034	C6	"	"
00035	C5	"	"
00036		"	"
036.8	BNB	Feb. - July Aug. - Dec.	Once a week Every two weeks
00038	WMB	"	"
00039	CCB	"	"

Table 7. (Continued)

Total viable heterotrophs (#/ml), 7 days
total viable heterotrophs (#/ml), 48 hours

Category: 714

Format: X.XX EXX

Sample type: GRB

Technique code: 056

Investigator code: 006

Funding code: 005

File ID: RHO

Computer station code	Station name	Time span	Time frequency
00021	WRO	Feb. - July Aug. - Dec.	Once a week Every two weeks
00028	RR2A	"	"
00029	RR3A	"	"
00030	RR4A	"	"
030.4	RR4C	"	"
036.8	BNB	"	"
00038	WMB	"	"
00039	CCB	"	"

Table 8. Parameters Measured on Subwatershed Runoff Waters.

Flow rate (liters/sec.)

Category: 130

Format: X.XX EXX

Sample type: GRB

Technique code: 031

Investigator code: 002

Funding code: 005 and 006

Computer station code	Station name	Time span	Time frequency
101	North Branch	Jan. - Dec.	Once a week
102	Blue Jay	Jan. - Dec.	Once a week
103	Williamson	Jan. - Dec.	Once a week
105	Sellman North	Jan. - Dec.	Once a week
106	Sellman South	Jan. - Dec.	Once a week
107	Fox Creek	June - Dec.	Once a week
108	Steinlein	Jan. - Dec.	Once a week
109	Cumberstone	May - Dec.	Once a week
110	Forest	Oct. - Dec.	Once a week
121	Main Branch	Jan. - Dec.	Once a week

Table 8. (Continued)

Total flow (liters)

Category: 131

Format: X.XX EXX

Sample type: FLX

Technique code: 033

Investigator code: 002

Funding code: 005 and 006

Computer station code	Station name	Time span	Time frequency
101	North Branch	Jan. - Dec.	Once a week
102	Blue Jay	Jan. - Dec.	Once a week
103	Williamson	Jan. - Dec.	Once a week
105	Sellman North	Jan. - Dec.	Once a week
106	Sellman South	Jan. - Dec.	Once a week
107	Fox Creek	June - Dec.	Once a week
108	Steinlein	Jan. - Dec.	Once a week
109	Cumberstone	May - Dec.	Once a week
110	Forest	Oct. - Dec.	Once a week
121	Main Branch	Jan. - Dec.	Once a week

Table 8. (Continued)

Temperature (^{o} Centigrade)

Category: 212

Format: XX.XX

Sample type: GRB

Technique code: 034

Investigator code: 002

Funding code: 005

Computer station code	Station name	Time span	Time frequency
099	Spring	Jan. - Dec.	Once a week
101	North Branch	Jan. - Dec.	Once a week
102	Blue Jay	Jan. - Dec.	Once a week
103	Williamson	Jan. - Dec.	Once a week
004	C4	Jan. - Dec.	Every two weeks
105	Sellman North	Jan. - Dec.	Once a week
106	Sellman South	Jan. - Dec.	Once a week
107	Fox Creek	Jan. - Dec.	Once a week
108	Steinlein	Jan. - Dec.	Once a week
109	Cumberstone	Apr. - Dec.	Once a week
110	Forest	Oct. - Dec.	Every two weeks
121	Main Branch	Jan. - Dec.	Once a week
122	Fox Point	Apr. - Dec.	Once a week

Table 8. (Continued)

pH

Category: 213

Format: XX.X

Sample type: GRB

Technique code: 036

Investigator code: 002

Funding code: 005

Computer station code	Station name	Time span	Time frequency
099	Spring	Jan. - Dec.	Every two weeks
101	North Branch	Jan. - Dec.	Every two weeks
102	Blue Jay	Jan. - Dec.	Every two weeks
103	Williamson	Jan. - Dec.	Every two weeks
004	C4	Jan. - Dec.	Every two weeks
105	Sellman North	Jan. - Dec.	Every two weeks
106	Sellman South	Jan. - Dec.	Every two weeks
107	Fox Creek	Jan. - Dec.	Every two weeks
108	Steinlein	Jan. - Dec.	Every two weeks
109	Cumberstone	Apr. - Dec.	Every two weeks
110	Forest	Oct. - Dec.	Every two weeks
121	Main Branch	Jan. - Dec.	Every two weeks

Table 8. (Continued)

Turbidity (Jackson units)

Category: 220

Format: XXX

Sample type: GRB and FLX

Technique code: 038

Investigator code: 002

Funding code: 005

Computer station code	Station name	Time span	Time frequency
099	Spring*	Jan. - Dec.	Every two weeks
101	North Branch	Jan. - Dec.	Once a week
102	Blue Jay	Jan. - Dec.	Once a week
103	Williamson	Jan. - Dec.	Once a week
004	C4*	Jan. - Dec.	Every two weeks
105	Sellman North	Jan. - Dec.	Once a week
106	Sellman South	Jan. - Dec.	Once a week
107	Fox Creek	Jan. - Dec.	Once a week
108	Steinlein	Jan. - Dec.	Once a week
109	Cumberstone	Apr. - Dec.	Once a week
110	Forest*	Oct. - Dec.	Every two weeks
121	Main Branch	Jan. - Dec.	Once a week
122	Fox Point	Apr. - Dec.	Once a week

* GRB sample only

Table 8. (Continued)

Total and mineral suspended particulates (mg/liter)

Category: 250

Format: XXXX.X, XXXX.X

Sample type: GRB and FLX*

Technique code: 043

Investigator code: 013

Funding code: 005 and 006

Computer station code	Station name	Time span	Time frequency
101	North Branch	Jan. - Dec.	Once a week
102	Blue Jay	Jan. - Dec.	Once a week
103	Williamson	Jan. - Dec.	Once a week
105	Sellman North	Jan. - Dec.	Once a week
106	Sellman South	Jan. - Dec.	Once a week
107	Fox Creek	Jan. - Dec.	Once a week
108	Steinlein	Jan. - Dec.	Once a week
109	Cumberstone	Apr. - Dec.	Once a week
110	Forest	Oct. - Dec.	Once a week
121	Main Branch	Jan. - Dec.	Once a week
122	Fox Point	Apr. - Dec.	Once a week

* Usually FLX, GRB when flow is low.

Table 8. (Continued)

N total (μg/liter)

Category: 310

Format: X.XX EXX

Sample type: FLX

Technique code: 044

Investigator code: 002

Funding code: 005 and 006

Computer station code	Station name	Time span	Time frequency
101	North Branch	Jan. - Dec.	Once a week
102	Blue Jay	Jan. - Dec.	Once a week
103	Williamson	Jan. - Dec.	Once a week
105	Sellman North	Jan. - Dec.	Once a week
106	Sellman South	Jan. - Dec.	Once a week
107	Fox Creek	Jan. - Dec.	Once a week
108	Steinlein	Jan. - Dec.	Once a week
109	Cumberstone	Apr. - Dec.	Once a week
110	Forest	Oct. - Dec.	Once a week
121	Main Branch	Jan. - Dec.	Once a week
122	Fox Point	Apr. - Dec.	Once a week

Table 8. (Continued)

Nitrite + nitrate, ammonia, nitrite + amino acid, total Kjeldahl nitrogen, and nitrite nitrogen (μg/liter)

Category: 311

Format: X.XX EXX, X.XX EXX, X.XX EXX, X.XX EXX, X.XX EXX

Sample type: GRB

Technique code: 044 - 048

Investigator code: 002

Funding code: 005 and 006

Computer station code	Station name	Time span	Time frequency
099	Spring	Jan. - Dec.	Every two weeks
101	North Branch	Jan. - Dec.	Every two weeks
102	Blue Jay	Jan. - Dec.	Every two weeks
103	Williamson	Jan. - Dec.	Every two weeks
004	C4	Jan. - Dec.	Every two weeks
105	Sellman North	Jan. - Dec.	Every two weeks
106	Sellman South	Jan. - Dec.	Every two weeks
107	Fox Creek	Jan. - Dec.	Every two weeks
108	Steinlein	Jan. - Dec.	Every two weeks
109	Cumberstone	Apr. - Dec.	Every two weeks
110	Forest	Oct. - Dec.	Every two weeks
121	Main Branch	Jan. - Dec.	Every two weeks

Table 8. (Continued)

Nitrite + nitrate, ammonia, total Kjeldahl nitrogen, and nitrite nitrogen (μg/liter)

Category: 311

Format: X.XX EXX, X.XX EXX, X.XX EXX, X.XX EXX

Sample type: FLX

Technique code: 044 - 048

Investigator code: 002

Funding code: 005 and 006

Computer station code	Station name	Time span	Time frequency
101	North Branch	Nov. - Dec.	Once a week
102	Blue Jay	Nov. - Dec.	Once a week
103	Williamson	Nov. - Dec.	Once a week
105	Sellman North	Nov. - Dec.	Once a week
106	Sellman South	Nov. - Dec.	Once a week
107	Fox Creek	Nov. - Dec.	Once a week
108	Steinlein	Nov. - Dec.	Once a week
109	Cumberstone	Nov. - Dec.	Once a week
110	Forest	Nov. - Dec.	Once a week
121	Main Branch	Nov. - Dec.	Once a week
122	Fox Point	Nov. - Dec.	Once a week

Table 8. (Continued)

P total (μg/liter)

Category: 320

Format: X.XX EXX

Sample type: GRB

Technique code: 049

Investigator code: 002

Funding code: 005 and 006

Computer station code	Station name	Time span	Time frequency
099	Spring	Jan. - Dec.	Every two weeks
101	North Branch	Jan. - Dec.	Every two weeks
102	Blue Jay	Jan. - Dec.	Every two weeks
103	Williamson	Jan. - Dec.	Every two weeks
004	C4	Jan. - Dec.	Every two weeks
105	Sellman North	Jan. - Dec.	Every two weeks
106	Sellman South	Jan. - Dec.	Every two weeks
107	Fox Creek	Jan. - Dec.	Every two weeks
108	Steinlein	Jan. - Dec.	Every two weeks
109	Cumberstone	Apr. - Dec.	Every two weeks
110	Forest	Oct. - Dec.	Every two weeks
121	Main Branch	Jan. - Dec.	Every two weeks
122	Fox Point	Apr. - Dec.	Every two weeks

Table 8. (Continued)

P total (μg/liter)

Category: 320

Format: X.XX EXX

Sample type: FLX

Technique code: 049

Investigator code: 002

Funding code: 005 and 006

Computer station code	Station name	Time span	Time frequency
101	North Branch	Jan. - Dec.	Once a week
102	Blue Jay	Jan. - Dec.	Once a week
103	Williamson	Jan. - Dec.	Once a week
105	Sellman North	Jan. - Dec.	Once a week
106	Sellman South	Jan. - Dec.	Once a week
107	Fox Creek	Jan. - Dec.	Once a week
108	Steinlein	Jan. - Dec.	Once a week
109	Cumberstone	Apr. - Dec.	Once a week
110	Forest	Oct. - Dec.	Once a week
121	Main Branch	Jan. - Dec.	Once a week
122	Fox Point	Apr. - Dec.	Once a week

Table 8. (Continued)

Dissolved inorganic phosphorus, dissolved total phosphorus, and inorganic phosphorus (μg/liter)

Category: 321

Format: X.XX EXX, X.XX EXX, X.XX EXX

Sample type: GRB

Technique code: 050

Investigator code: 002

Funding code: 005 and 006

Computer station code	Station name	Time span	Time frequency
099	Spring	Jan. - Dec.	Every two weeks
101	North Branch	Jan. - Dec.	Every two weeks
102	Blue Jay	Jan. - Dec.	Every two weeks
103	Williamson	Jan. - Dec.	Every two weeks
004	C4	Jan. - Dec.	Every two weeks
105	Sellman North	Jan. - Dec.	Every two weeks
106	Sellman South	Jan. - Dec.	Every two weeks
107	Fox Creek	Jan. - Dec.	Every two weeks
108	Steinlein	Jan. - Dec.	Every two weeks
109	Cumberstone	Apr. - Dec.	Every two weeks
110	Forest	Oct. - Dec.	Every two weeks
121	Main Branch	Jan. - Dec.	Every two weeks

Table 8. (Continued)

Dissolved inorganic phosphorus, dissolved total phosphorus, and inorganic phosphorus (μg/liter)

Category: 321

Format: X.XX EXX, X.XX EXX, X.XX EXX

Sample type: FLX

Technique code: 050

Investigator code: 002

Funding code: 005 and 006

Computer station code	Station name	Time span	Time frequency
101	North Branch	Jan. - Dec.	Once a week
102	Blue Jay	Jan. - Dec.	Once a week
103	Williamson	Jan. - Dec.	Once a week
105	Sellman North	Jan. - Dec.	Once a week
106	Sellman South	Jan. - Dec.	Once a week
107	Fox Creek	Jan. - Dec.	Once a week
108	Steinlein	Jan. - Dec.	Once a week
109	Cumberstone	Apr. - Dec.	Once a week
110	Forest	Oct. - Dec.	Once a week
121	Main Branch	Jan. - Dec.	Once a week

Table 8. (Continued)

Organic carbon - combustion (mg/liter)

Category: 330

Format: X.XX EXX

Sample type: GRB

Technique code: 058

Investigator code: 002

Funding code: 005 and 006

Computer station code	Station name	Time span	Time frequency
121	Main Branch	June - Dec.	Every two weeks
122	Fox Point	Jan. - Dec.	Every two weeks

Table 8. (Continued)

Organic carbon - combustion (mg/liter)

Category: 330

Format: X.XX EXX

Sample type: FLX

Technique code: 058

Investigator code: 002

Funding code: 005 and 006

Computer station code	Station name	Time span	Time frequency
121	Main Branch	June - Dec.	Once a week
122	Fox Point	Jan. - Dec.	Once a week

Table 8. (Continued)

Total organic matter (g cal/liter)

Category: 331

Format: X.XX EXX

Sample type: GRB

Technique code: 051

Investigator code: 002

Funding code: 005 and 006

Computer station code	Station name	Time span	Time frequency
099	Spring	Jan. - Dec.	Every two weeks
101	North Branch	Jan. - Dec.	Every two weeks
102	Blue Jay	Jan. - Dec.	Every two weeks
103	Williamson	Jan. - Dec.	Every two weeks
004	C4	Jan. - Dec.	Every two weeks
105	Sellman North	Jan. - Dec.	Every two weeks
106	Sellman South	Jan. - Dec.	Every two weeks
107	Fox Creek	Jan. - Dec.	Every two weeks
108	Steinlein	Jan. - Dec.	Every two weeks
109	Cumberstone	Apr. - Dec.	Every two weeks
110	Forest	Oct. - Dec.	Every two weeks
121	Main Branch	Jan. - Dec.	Every two weeks

Table 8. (Continued)

Total organic matter (g cal/liter)

Category: 331

Format: X.XX EXX

Sample type: FLX

Technique code: 051

Investigator code: 002

Funding code: 005 and 006

Computer station code	Station name	Time span	Time frequency
101	North Branch	Jan. - Dec.	Once a week
102	Blue Jay	Jan. - Dec.	Once a week
103	Williamson	Jan. - Dec.	Once a week
105	Sellman North	Jan. - Dec.	Once a week
106	Sellman South	Jan. - Dec.	Once a week
107	Fox Creek	Jan. - Dec.	Once a week
108	Steinlein	Jan. - Dec.	Once a week
109	Cumberstone	Apr. - Dec.	Once a week
110	Forest	Oct. - Dec.	Once a week
121	Main Branch	Jan. - Dec.	Once a week

Table 8. (Continued)

Herbicides (μg/liter)

Category: 360 Simazine
361 Atrazine
362 Linuron
364 Trifluralin
370 Alachlor

Format: X.XX E ± XX

Sample type: FLX

Technique code: 077

Investigator code: 026

Funding code: 002 and 006

Computer Station code	Station name	Time span	Time frequency
101	North Branch	June - Dec.	Once a week
102	Blue Jay	June - Dec.	Once a week
103	Williamson	June - Dec.	Once a week
105	Sellman North	June - Dec.	Once a week
106	Sellman South	June - Dec.	Once a week
107	Fox Creek	June - Dec.	Once a week
108	Steinlein	June - Dec.	Once a week
109	Cumberstone	Apr. - Dec.	Once a week
110	Forest	Oct. - Dec.	Once a week
121	Main Branch	Jan. - Dec.	Once a week

Table 8. (Continued)

Category:	380	Format:	X.XX EXX	Nickel (μg/liter)
	381		X.XX EXX	Copper (μg/liter)
	382		X.XX EXX	Zinc (μg/liter)
	383		X.XX EXX	Lead (μg/liter)
	384		X.XX EXX	Chromium (μg/liter)
	385		X.XX EXX	Cadmium (μg/liter)
	386		X.XX EXX	Manganese (μg/liter)
	387		X.XX EXX	Iron (μg/liter)
	388		X.XX EXX	Potassium (μg/liter)
	389		X.XX EXX	Calcium (μg/liter)
	390		X.XX EXX	Magnesium (μg/liter)

Sample type: FLX

Technique code: 052

Investigator code: 026

Funding code: 005 and 006

Computer station code	Station name	Time span	Time frequency
099	Spring	Jan. - Dec.	Once a week
101	North Branch	Jan. - Dec.	Once a week
102	Blue Jay	Jan. - Dec.	Once a week
103	Williamson	Jan. - Dec.	Once a week
105	Sellman North	Jan. - Dec.	Once a week
106	Sellman South	Jan. - Dec.	Once a week
107	Fox Creek	Jan. - Dec.	Once a week
108	Steinlein	Jan. - Dec.	Once a week
109	Cumberstone	Apr. - Dec.	Once a week
110	Forest	Oct. - Dec.	Once a week
121	Main Branch	Jan. - Dec.	Once a week
122	Fox Point	Apr. - Dec.	Once a week

Table 8. (Continued)

Total coliform and fecal coliform (#/100 ml)

Category: 710

Format: X.XX EXX, X.XX EXX

Sample type: GRB

Technique code: 053

Investigator code: 006

Funding code: 002, 005 and 006

Computer station code	Station name	Time span	Time frequency
099	Spring	Jan. - Dec.	Once a week
101	North Branch	Jan. - Dec.	Once a week
102	Blue Jay	Jan. - Dec.	Once a week
103	Williamson	Jan. - Dec.	Once a week
105	Sellman North	Jan. - Dec.	Once a week
106	Sellman South	Jan. - Dec.	Once a week
107	Fox Creek	Jan. - Dec.	Once a week
108	Steinlein	Jan. - Dec.	Once a week
109	Cumberstone	Apr. - Dec.	Once a week
110	Forest	Oct. - Dec.	Once a week
121	Main Branch	Jan. - Dec.	Once a week

Table 8. (Continued)

Total streptococci and fecal streptococci (#/100 ml)

Category: 712

Format: X.XX EXX, X.XX EXX

Sample type: GRB

Technique code: 054

Investigator code: 006

Funding code: 002, 005 and 006

Computer station code	Station name	Time span	Time frequency
099	Spring	Jan. - Dec.	Once a week
101	North Branch	Jan. - Dec.	Once a week
102	Blue Jay	Jan. - Dec.	Once a week
103	Williamson	Jan. - Dec.	Once a week
105	Sellman North	Jan. - Dec.	Once a week
106	Sellman South	Jan. - Dec.	Once a week
107	Fox Creek	Jan. - Dec.	Once a week
108	Steinlein	Jan. - Dec.	Once a week
109	Cumberstone	Apr. - Dec.	Once a week
110	Forest	Oct. - Dec.	Once a week
121	Main Branch	Jan. - Dec.	Once a week

Table 8. (Continued)

Total viable heterotrophs (7 days) and total viable heterotrophs (48 hours) (#/ml)

Category: 714

Format: X.XX EXX, X.XX EXX

Sample type: GRB

Technique code: 056

Investigator code: 006

Funding code: 002, 005 and 006

Computer station code	Station name	Time span	Time frequency
099	Spring	Jan. - Dec.	Once a week
101	North Branch	Jan. - Dec.	Once a week
102	Blue Jay	Jan. - Dec.	Once a week
103	Williamson	Jan. - Dec.	Once a week
105	Sellman North	Jan. - Dec.	Once a week
106	Sellman South	Jan. - Dec.	Once a week
107	Fox Creek	Jan. - Dec.	Once a week
108	Steinlein	Jan. - Dec.	Once a week
109	Cumberstone	Apr. - Dec.	Once a week
110	Forest	Oct. - Dec.	Once a week
121	Main Branch	Jan. - Dec.	Once a week

Table 9. Parameters Measured in Upland Ecology Research.

Litter Fall

Investigator: 002 and 032

Project code: LTR

Funding code: 001 and 002

Technique code: 062

Frequency: Once a week

Time span: January - December

Intensive study sites: 002, 004, and 005

Litter boxes were moved to a new set of locations in 1976. Twenty boxes were arranged in a stratified random grid on a part of site 2, which corresponds to watershed 110 (Figure 9). Twelve boxes were relocated in a stratified random grid at site 5 and 48 boxes were relocated in a stratified random grid within an expanded area which included the original site 4. This reorganization was completed for site 2 by May 20, for site 4 by May 30, and for site 5 by May 18.

Table 9. (Continued)

Litter Fall

Site 2*

Litter box number	Grid coordinates	
101	3809	6085
102	3812	6127
103	3830	6142
104	3828	6144
105	3790	6034
106	3776	6063
107	3783	6096
108	3754	6056
109	3710	6042
110	3790	6111
111	3767	6140
112	3770	6161
113	3727	6169
114	3709	6181
115	3764	6238
116	3741	6221
117	3658	6085
118	3674	6141
119	3674	6155
120	3661	6154

* See Figure 9.

Table 9. (Continued)

Litter Fall

Site 4

Litter box number	Grid coordinates	
121	4292	5208
122	4281	5214
123	4280	5235
124	4275	5283
125	4270	5266
126	4268	5230
127	4267	5243
128	4261	5201
129	4239	5292
130	4225	5232
131	4222	5246
132	4212	5215
133	4191	5364
134	4179	5359
135	4174	5319
136	4172	5306
137	4167	5328
138	4124	5325
139	4117	5393
140	4116	5347
141	4115	5304
142	4114	5310

Table 9. (Continued)

Site 4

Litter box number	Grid coordinates	
143	4111	5301
144	4104	5392
145	4200	5472
146	4189	5463
147	4189	5405
148	4190	5475
149	4184	5470
150	4177	5449
151	4174	5455
152	4140	5425
153	4132	5475
154	4117	5476
155	4111	5485
156	4108	5434
157	4098	5369
158	4096	5312
159	4083	5351
160	4074	5387
161	4067	5370
162	4058	5381
163	4052	5317
164	4052	5373
165	4022	5335
166	4015	5354

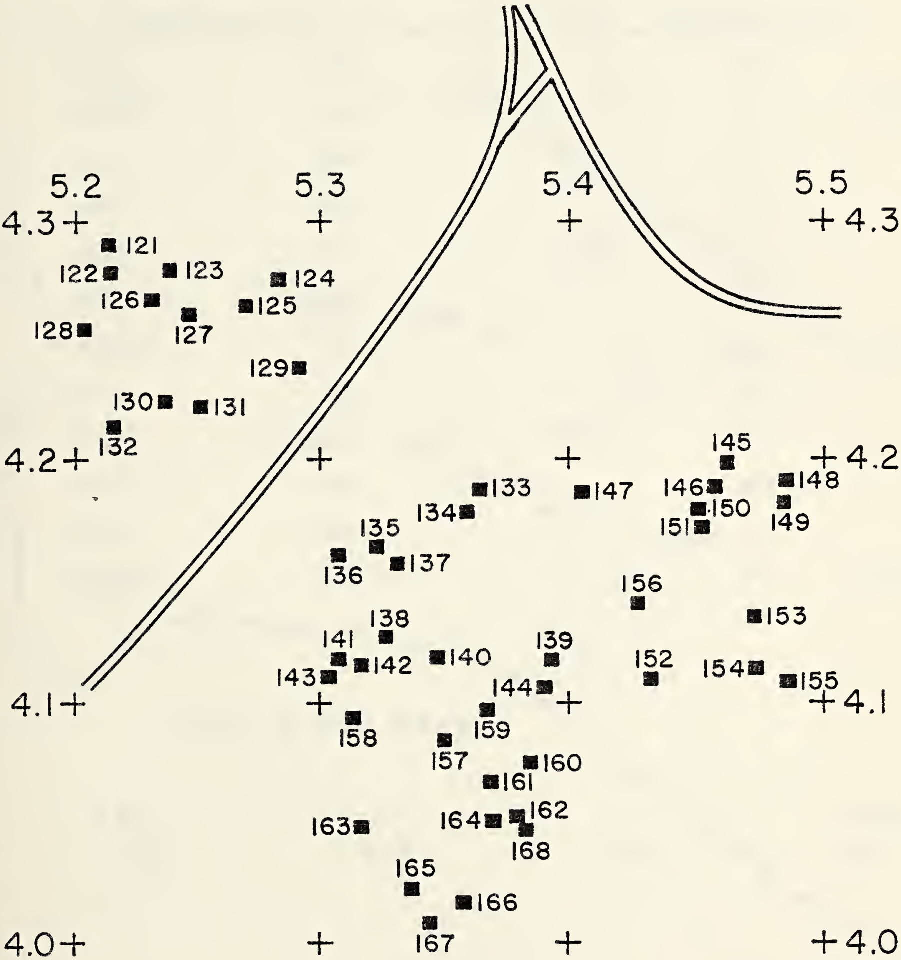
Table 9. (Continued)

Site 4

Litter box number	Grid coordinates	
167	4008	5346
168	4053	5388

LEAF LITTER BOX LOCATIONS

SITE 4



RHODE RIVER HECTARE GRID (X 1000)

Table 9. (Continued)

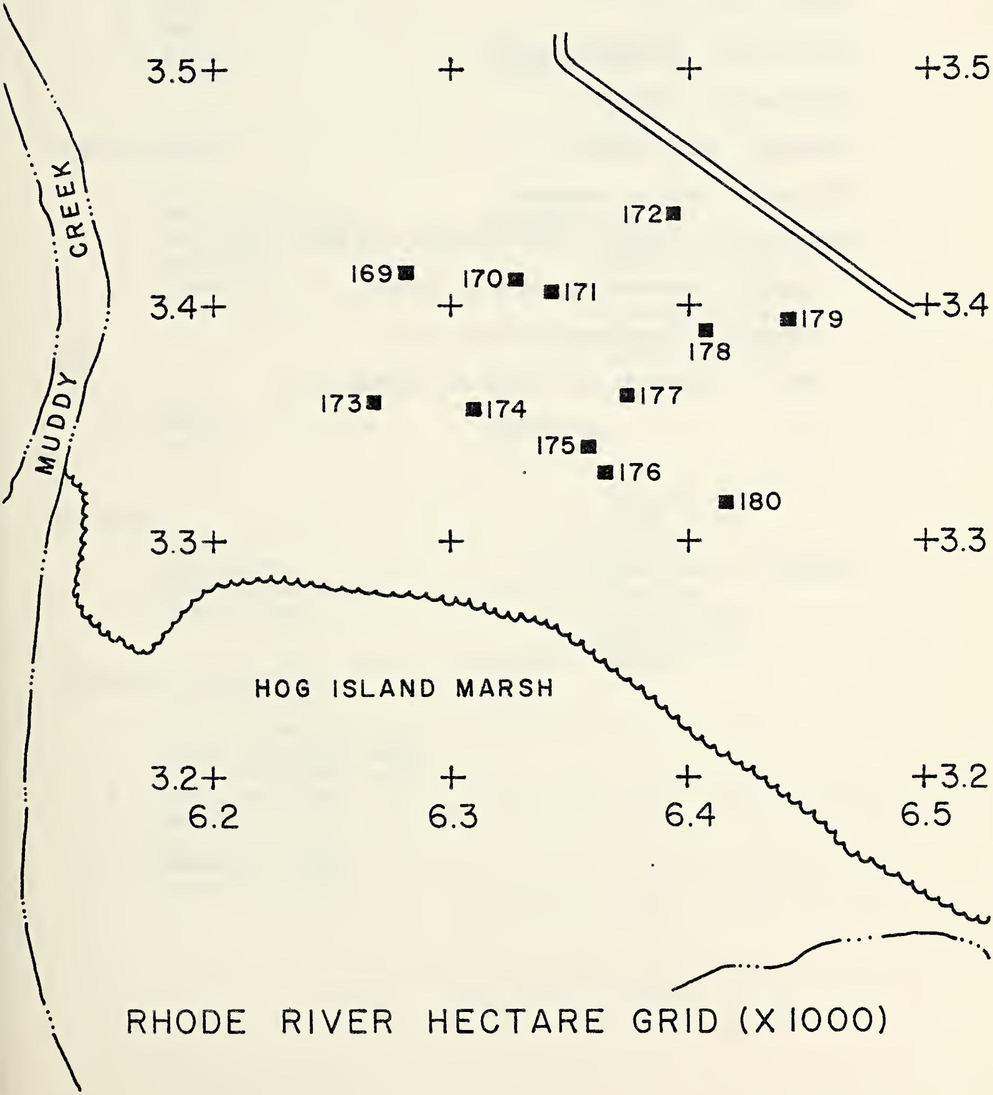
Litter Fall

Site 5

Litter box number	Grid coordinates	
169	3419	6284
170	3413	6327
171	3410	6342
172	3437	6395
173	3358	6265
174	3351	6309
175	3337	6358
176	3331	6362
177	3362	6375
178	3391	6404
179	3396	6442
180	3316	6415

LEAF LITTER BOX LOCATIONS

SITE 5



RHODE RIVER HECTARE GRID (X 1000)

Table 9. (Continued)

Small mammal populations

Investigator: 009

Project code: SMM

Funding code: 001/002

Technique code: 063

Frequency: once a month

Time span: January - November

Intensive sites studied: 001, 002, 004, and 009

January - May stations were as follows: 1, 4, 5, 9

January stations were as follows: 2

May - November stations were as follows: 4, 9

Key to Parameters Coded

Species:

1 = Peromyscus
2 = Blarina
3 = Microtus
4 = Sorex
5 = Mus
6 = Zapus
7 = Tamias

Capture status:

0 = New
1 = Recaptured, alive
2 = Recaptured, dead
3 = New, dead
4 = Escaped

Sex:

1 = Male
2 = Female
3 = Unknown

Age/color:

1 = Adult/brown
2 = Subadult/grey-brown
3 = Juvenile/grey

Reproductive conditions:

1 = Testes ascended
2 = Testes descended, small
3 = Testes descended, large
4 = Testes shriveled
5 = Mammaries, tiny
6 = Mammaries, small
7 = Mammaries, large
8 = Mammaries, w/milk

Pregnant:

0 = No
1 = Yes
2 = Unknown

Ectoparasites:

1 = Flea
2 = Tick
3 = Mite

Time of capture:

1 = Morning, 1st day
2 = Afternoon, 1st day
3 = Morning, 2nd day
4 = Afternoon, 2nd day
5 = Morning, 3rd day

Comments:

1 = released, weak
2 = bloody vagina
3 = No tail
4 = White spot on forehead
5 = Nematodes
6 = Injured animal
7 = Damaged toes
8 = Remarks

Table 9. (Continued)

Ant populations

Investigator: 009

Project code: ANT

Funding code: 001/002/004

Technique code: 064

Frequency: variable

Time span: February - July

Intensive sites studied: 1, 2, 3, 4, 5, and 6

List of Ant Transects

Code	Location	Description
1	Just north of North Branch weir	Stations at intervals of 0, 2, 4, 6, 8, 10, 15, 20, 25, 30, 35, 40, 45, 50 m from stream.
2	Just south of North Branch weir	Floodplain and hillside. Stations at intervals of 0, 2, 4, 6, 8, 10, 15, 20, 25, 30, 35, 40, 45, 50 m from stream.
3	~ 200 m south of North Branch weir	All floodplain. Stations at intervals of 0, 2, 4, 6, 8, 10, 15, 20, 25, 30, 35, 40, 50 m from stream.
4	Lower Stevens field	Young floodplain and old field. Stations at intervals of 0, 2, 4, 6, 8, 10, 15, 20, 25, 30, 35, 40, 45, 50 m from stream.
5	Eastern Stevens field (site 009)	Young floodplain and old field. ~ 200 m north of transect #4. Stations at 0, 2, 4, 6, 8, 10, 15, 20, 25, 30, 35, 40, 45, 50 m.
6	Lower Stevens field	Young floodplain and old field. ~ 350 m north of transect #4. Stations at 0, 2, 4, 6, 8, 10, 15, 20, 25, 30, 35, 40, 45, 50 m.
7	Western triangle (site 004)	Mature hardwood forest above floodplain of North Branch. Twenty stations at 10 m intervals.
8	Stevens field	5-6 year old abandoned field. Twenty stations at 10 m intervals.
9	Lower Stevens field	2 year old abandoned field. Twenty stations at 10 m intervals.
10	Howat pasture	300 m north of entrance to CBCES, off Contees Wharf Road. Twenty stations at 10 m intervals.
11	Howat cornfield	Just south of entrance to CBCES, off Contees Wharf Road. Twenty stations at 10 m intervals.
12	Area 5	35 year old woods just west of Fox Point and south of road. Twenty stations at 10 m intervals.

Table 9. (Continued)

Understory
Arthropods

Investigator: 009

Funding code: 001/002/004

Technique code: 065

Frequency: monthly

Time span: January - August

Intensive sites studied: 004, 005, 009

Table 9. (Continued)

Leaf Litter
Arthropods

Investigator: 022

Technique code: 066

Frequency: monthly

Time span: January - December

Intensive sites studied: 004, 005, 009

Table 9. (Continued)

Woodland bird populations in forest and old field sites.

Investigator: 012

Funding code: 001

Technique: see 1974 ESP report

Time span: spring - early summer

Tadpole populations in swamp upstream of weir 101.

Investigator: 007

Funding code: 002

Technique code: not yet available

Frequency: weekly

Time span: spring

Table 9. (Continued)

Lawn Project

<u>Primary production</u>

Investigator: 005

Project code: TRF

Funding code: 001

Technique: 067

Frequency: variable

Time span: February - November

Intensive study site No. 10

Table 9. (Continued)

Soils (chemical)

Category:

213	pH
312	Organic nitrogen
313	Water soluble NO_3
314	KCl NO_3
315	Non exchangeable NO_3
316	Water soluble NH_4
317	KCl NH_4
318	Non exchangeable NH_4
320	Total phosphorus
322	Water soluble orthophosphorus
323	KCl extractable orthophosphorus
324	Acid soluble orthophosphorus
331	Total organic matter

Format:

213	XX.X
312	X.XXEXX
313	X.XXEXX
314	X.XXEXX
315	X.XXEXX
316	X.XXEXX
317	X.XXEXX
318	X.XXEXX
320	X.XXEXX
322	X.XXEXX
323	X.XXEXX
324	X.XXEXX
331	X.XXEXX

Investigator: 002

Funding code: 006

Technique: 070, 071, and 072

Frequency: Variable

Time span: April - December

Station numbers: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 at intensive study site #14 (see Figure 8).

Table 9. (Continued)

Soils (chemical)

April - June stations were as follows:

1
2, 3 composite
4, 5 composite
6, 7 composite
8, 9 composite
10

June - December stations were as follows:

1
2, 3, 4, 5 composite
6, 7, 8, 9 composite
10

Table 9. (Continued)

Soils (temperature and moisture)

Category: 212 Temperature (Kohms)
214 Moisture (mg H_2O/cc soil)

Format: XX.X, XXX.X

Investigator: 002

Funding code: 006

Technique: 069

Frequency: variable

Time span: April - December

Station numbers: 1, 2, 3, 4, 5, 6, 7, 8, 9, and 10 at intensive study site #14 (see Figure 8).

April - June stations were as follows:

1
2, 3 composite
4, 5 composite
6, 7 composite
8, 9 composite
10

June - December stations were as follows:

1
2, 3, 4, 5 composite
6, 7, 8, 9 composite
10

Table 9. (Continued)

Soils (mineralogy) (%)

Category:	251	Mineral size distribution	Format:	XX.XX
	255	Montmorillonite		XX.XX
	256	Illonite		XX.XX
	257	Kaolinite		XX.XX
	258	Gibbsite		XX.XX
	259	Chlorite		XX.XX
	260	Quartz		XX.XX
	261	K-spar		XX.XX
	262	Plagiclase		XX.XX
	263	Talc		XX.XX
	264	Amph.		XX.XX
	265	Clin.		XX.XX
	266	Calcite		XX.XX
	267	Dolomite		XX.XX

Investigator: 013

Funding code: 006

Technique: 078

Frequency: Once a year

Time span: January

Station numbers: 1, 2, 3, 4, 5, 6, 7, 8, 9, and 10 at intensive study site #14 (see Figure 8)

Table 9. (Continued)

Soils (mineralogy)

Category: 301 Total iron (%) Format: XX.XX
300 Extractable iron (%) XX.XX
312 Organic N X.XX EXX
330 Organic carbon XX.XX
332 Organic matter XX.XX

Category		Format
301	Total iron (%)	XX.XX
300	Extractable iron (%)	XX.XX
312	Organic N	X.XX EXX
330	Organic carbon	XX.XX
332	Organic matter	XX.XX

Investigator: 013

Funding code: 006

Technique: 078

Frequency: Every week

Time span: April - December

Station numbers: 1, 2, 3, 4, 5, 6, 7, 8, 9, and 10 at intensive study site #14 (see Figure 8)

April - June stations were as follows:

1
2, 3 composite
4, 5 composite
6, 7 composite
8, 9 composite
10

June - December stations were as follows:

1
2, 3, 4, 5, composite
6, 7, 8, 9 composite
10

Table 9. (Continued)

Soils (herbicides)

Category: 361 Atrazine (ug/ℓ)
370 Alachlor (ug/ℓ)

Format: X.XX E±XX, X.XX E±XX

Investigator: 026

Funding code: 006

Technique: 077

Frequency: variable

Time span: April - December

Station numbers: 1, 2, 3, 4, 5, 6, 7, 8, 9, and 10 at intensive study site #14 (see Figure 8)

April - June stations were as follows:

1
2, 3 composite
4, 5 composite
6, 7 composite
8, 9 composite
10

June - December stations were as follows:

1
2, 3, 4, 5 composite
6, 7, 8, 9 composite
10

Table 9. (Continued)

Soils (microbiology)

Investigator: 006 and Kim Perry

Funding code: 002 and work/learn program

Technique: Total viable bacteria and fecal coliforms and streptococcus were identified as described by technique codes 53, 54, and 56.

Time span: May 7, May 13, and June 24

Sampling sites: Intensive study site 14 (cornfield) and Rhode River watershed 109.

Plankton Primary Production and Phosphorus Uptake

Investigator: 002

Funding code: 005 and work/learn program

Technique code: 080

Time and locations:	October 22	CBCES dock
	November 11	WR1T, RR3T
	November 22	RR3T, RR4T
	December 8	WR1T

Tidal Marsh Community Metabolism

Investigator: 004

Funding code: 001 and 003

Technique: A clear plexiglass gas exchange chamber is used to seal off a one meter square portion of marsh community down to the sediments. It is temperature controlled to ambient inside. Air from a meter or two above the marsh is drawn through the chamber and changes in CO_2 concentration are measured. Light intensity is monitored. Dark measurements are also made.

Times: Frequent all day studies are conducted during the growing season.

Stations: Several plant communities in the high marsh of Kirkpatrick Marsh.

Corn Plant Height and Leaf Area Indexes

Investigator: 002

Funding code: 006

Technique: All leaves from individual plants selected at random at each station were measured. The height of the highest part of the plant was also measured.

Frequency: 20 day intervals during growing season.

Stations: Five of the soil sampling stations on watershed 109 (Figure 8).

Table 10. Height and leaf area index of corn plants on watershed 109 in 1976.

Station	July 2	July 23	August 12	September 7
1				
Corn height (cm)	105	270	229	267
Leaf area index	-	1.11	2.71	3.30
3				
Corn height (cm)	202	292	289	308
Leaf area index	-	3.57	2.96	3.01
5				
Corn height (cm)	200	301	258	-
Leaf area index	-	4.39	2.66	2.89
6				
Corn height (cm)	117	262	231	231
Leaf area index	2.04	2.97	3.29	2.39
8				
Corn height (cm)	239	357	326	336
Leaf area index	3.20	3.41	3.09	2.95
		3.09	2.94	2.91

Biomass and Nutrient Removal of Corn on Watershed 109

Investigator: 002

Funding code: 006

Technique code: 073

Frequency: Approximately every 20 days during the growing season.

Stations: Five soil stations on watershed 109 (Figure 8).

Table 11. Corn plant populations and nutrient mass (grams/m^2) withdrawal by corn plants of watershed 109 in 1976

A. Total phosphorus

Station	Mean # plants/m^2	50 (7/2)	71 (7/23)	91 (8/12)	112 (9/3)	157 (10/18)
		Days since planting				
1	4.5					
Above ground		1.020	1.593	1.760	7.578	6.215
Below ground		0.072	0.315	0.135	0.180	0.275
Total		1.092	1.908	1.895	7.758	6.489
3	4.8					
Above ground		3.470	2.587	2.434	3.805	5.385
Below ground		0.811	0.250	0.178	0.165	0.269
Total		4.282	2.837	2.434	3.970	5.654
6	3.8					
Above ground		0.445**	1.395	3.085	1.017*	4.021
Below ground		0.049	0.243	0.369	0.160	0.167
Total		0.494	1.638	3.454	1.197	4.188
Mean total		2.686	2.128	2.584	5.692	5.216
SD		-	0.629	0.792	-	1.120
2	4.7					
7	4.1					
10	3.7					

* Total phosphorus in kernels omitted.
** No total phosphorus on tassles.

Table 11. (Continued)

A. Total phosphorus

Station	Mean # plants/m^2	57 (7/2)	78 (7/23)	98 (8/12)	119 (9/3)	164 (10/18)
		Days since planting				
5	4.1					
Above ground		2.809	2.226	2.907	2.092	3.042
Below ground		0.299	0.259	0.123	0.148	0.074
Total		3.108	2.485	3.030	2.240	3.116
8	3.6					
Above ground		13.359**	2.318	4.227	6.008	3.715
Below ground		2.050	0.202	0.158	0.263	0.083
Total		15.411	2.520	4.385	6.271	3.798
Mean total		9.260	2.503	3.708	4.256	3.457
4	3.9					
9	3.9					

** No total phosphorus data on tassles.

Table 11. (Continued)

B. Total Kjeldahl nitrogen

Station	Mean # plants/m^2	50 (7/2)	71 (7/23)	91 (8/12)	112 (9/3)	157 (10/18)
		Days after planting				
1	4.5					
Above ground		8.280	8.510	10.350	36.810	24.930
Below ground		0.536	0.315	0.135	1.570	0.275
Total		8.82	8.825	10.480	38.35	25.20
3	4.8					
Above ground		13.94	18.99	8.707	17.57	28.680
Below ground		1.60	0.25	0.178	1.40	0.269
Total		15.54	19.24	8.885	18.94	28.950
6	3.8					
Above ground		4.222	12.47	18.74	7.78*	18.290
Below ground		0.049	0.243	0.369	0.16	0.167
Total		4.271	12.710	19.110	7.94	18.460
Mean total		9.54	13.59	12.83	28.65	24.2
		5.67	5.26	5.50	-	5.32
2	4.7					
7	4.1					
10	3.7					

* Nitrogen mass of kernels omitted.

Table 11. (Continued)

B. Total Kjeldahl nitrogen

Station	Mean # plants/m^2	Days after planting 57 (7/2)	78 (7/23)	98 (8/12)	119 (9/3)	164 (10/18)
5	4.1					
Above ground		9.464	16.79	11.07	30.46	17.02
Below ground		0.976	0.258	0.123	0.148	0.074
Total		10.44	17.04	11.19	30.61	17.71
8	3.6					
Above ground		15.11	16.45	12.87	20.00	22.72
Below ground		0.306	0.202	0.158	0.853	0.083
Total		15.412	16.65	13.03	20.86	22.80
Mean total		12.93	16.85	12.11	25.74	20.28
4	3.9					
9	3.9					

Table 12. Total phosphorus concentrations in corn plant parts (mg/g dry wt) on watershed 109.

A. July 2, 1976

Total phosphorus (mg/g dry wt)

Roots	Stalks	Leaves	Tassles	Ears	Husks
Station 1					
2.38	3.17	4.02	-	-	-
Station 3					
5.09	3.09	8.66	6.61	-	-
Station 5					
5.11	1.97	10.02	11.34	-	-
Station 6					
1.44	1.74	2.56	-	-	-
Station 8					
2.15	2.36	3.95	-	-	-

B. July 23, 1976.

Roots	Stalks	Leaves	Tassles	Ears	Husks
Station 1					
3.45	2.57	2.67	3.71	4.68	4.00
Station 3					
2.81	1.78	2.91	1.72	3.77	3.06
Station 5					
2.23	1.76	2.00	2.72	4.22	2.94
Station 6					
2.42	2.26	2.83	2.17	No sample	2.03
Station 8					
2.51	2.60	2.49	2.31	4.80	2.81

Table 12. (Continued)

C. August 12, 1976

Total phosphorus (mg/g dry wt)

Roots	Stalks	Leaves	Tassles	Kernels	Cobs	Husks
			Station 1			
1.28	1.77	2.60	1.56	2.58	2.76	1.36
			Station 3			
1.28	2.17	3.82	1.63	2.58	1.48	1.53
			Station 5			
1.18	1.13	3.68	1.37	3.14	3.77	1.52
			Station 6			
2.14	2.68	3.57	2.16	None	4.00	1.44
			Station 8			
1.13	2.54	3.51	1.99	2.82	2.11	1.93

D. September 3, 1976

Roots	Stalks	Leaves	Tassles	Kernels	Cobs	Husks
			Station 1			
0.9	2.1	4.2	1.1	3.4	5.5	2.5
			Station 3			
1.0	1.0	3.5	1.7	4.1	7.8	2.8
			Station 5			
1.0	0.7	3.2	1.0	4.8	6.4	1.4
			Station 6			
1.3	0.7	2.4	1.3	-	-	1.0
			Station 8			
1.6	3.0	4.1	0.9	4.6	5.8	1.5

Table 12. (Continued)

E. October 18, 1976

Total phosphorus (mg/g dry wt)

Roots	Stalks	Leaves	Tassles	Kernels	Cobs	Husks
			Station 1			
0.90	2.4	3.0	0.63	4.02	0.93	2.5
			Station 3			
0.97	1.85	2.05	0.962	3.95	0.83	2.02
			Station 5			
0.57	0.633	1.07	0.955	3.49	0.67	0.679
			Station 6			
1.32	3.46	3.26	0.582	4.33	2.04	2.43
			Station 8			
0.79	1.14	2.74	0.965	3.46	0.77	1.01

Table 13. Total Kjeldahl nitrogen concentrations in corn plant parts (mg/g dry wt) on watershed 109.

A. July 2, 1976

Kjeldahl nitrogen (mg/g dry wt)

Roots	Stalks	Leaves	Tassles	Ears	Husks
			Station 1		
17.75	16.54	31.73	-	-	-
			Station 3		
10.01	13.68	32.76	44.75	-	-
			Station 5		
17.31	12.84	24.96	31.71	-	-
			Station 6		
7.87	7.49	29.28	23.11	. -	-
			Station 8		
14.48	12.31	36.83	27.52	-	-

B. July 23, 1976

Roots	Stalks	Leaves	Tassles	Ears	Husks
			Station 1		
18.01	5.44	32.24	34.32	30.15	17.24
			Station 3		
11.08	5.97	39.56	18.02	21.47	10.65
			Station 5		
7.33	6.61	29.70	13.14	27.71	21.35
			Station 6		
9.53	7.49	46.28	15.47	No sample	17.06
			Station 8		
12.41	8.06	34.84	13.10	29.17	15.30

Table 13. (Continued)

C. August 12, 1976

Kjeldahl nitrogen (mg/g dry wt)

Roots	Stalks	Leaves	Tassles	Kernels	Cobs	Husks
			Station 1			
8.47	8.26	21.7	8.55	14.7	3.53	6.71
			Station 3			
3.42	3.10	21.4	10.9	12.2	4.51	2.21
			Station 5			
5.61	2.04	18.1	6.79	14.8	33.0	8.39
			Station 6			
9.50	4.23	25.6	13.1	-	28.5	8.08
			Station 8			
2.46	1.44	21.3	9.28	13.4	10.6	4.80

D. September 3, 1976

Roots	Stalks	Leaves	Tassles	Kernels	Cobs	Husks
			Station 1			
7.9	6.0	18.8	5.7	23.9	5.5	5.2
			Station 3			
8.5	6.2	17.9	9.3	18.1	7.8	9.4
			Station 5			
4.3	3.5	20.1	10.4	20.0	6.4	9.0
			Station 6			
10.6	4.6	18.0	8.8	-	-	4.2
			Station 8			
5.2	7.3	21.5	5.9	13.2	5.8	4.8

Table 13. (Continued)

E. October 18, 1976

Kjeldahl nitrogen (mg/g dry wt)

Roots	Stalks	Leaves	Tassles	Kernels	Cobs	Husks
			Station 1			
6.4	6.4	10.9	8.3	16.0	4.0	10.8
			Station 3			
6.2	7.8	8.9	6.8	21.3	3.4	10.6
			Station 5			
8.7	4.8	10.3	7.9	18.5	6.3	9.4
			Station 6			
14.1	12.9	14.4	12.5	21.3	8.1	8.5
			Station 8			
9.5	9.0	16.5	11.1	18.9	5.4	4.6

Table 14. Corn dry weight (g/plant) and total nutrient content (g/plant) for various plant parts on watershed 109.

A. July 2, 1976 - (day 50 for stations 1, 3, and 6; day 57 for stations 5 and 8).

	Station 1	3	5	6	8	Mean	sd	N:P
Husks	Not present yet							
Cobs	Not present yet							
Kernels	Not present yet							
Tassles								
Dry mass		1.36	2.108	2.08	0.89	1.61	0.59	
Total P	No sample	.009	.024	*	*	.017		6.8:1
Kj. N		.067	.067	.049	.025	.052	.020	
Leaves								
Dry mass	43.2	58.2	51.8	27.4	71.5	50.4	16.5	
Total P	.174	.504	.519	.071	.283	.310	.56	11.4:1
Kj. N	1.370	1.908	1.292	.802	2.635	1.601	.70	
Stalks								
Dry mass	28.5	67.9	74.0	26.2	85.3	56.4	27.2	
Total P	.053	.210	.142	.046	.201	.130	.078	12.2:1
Kj. N	.471	.929	.950	.196	1.051	.719	.37	
Roots								
Dry mass	6.7	33.2	13.8	9.0	39.4	20.4	14.9	
Total P	.016	.169	.073	.013	.085	.071	.27	8.3:1
Kj. N	.119	.333	.238	.077	.570	.267	.197	
Total								
Dry mass	78.4	160.7	141.7	64.7	197.1	128.5	55.9	
Total P	.243	.892	.758	.130*	.569*	.518	.326	11.2:1
Kj. N	1.960	3.237	2.547	1.124	4.281	2.630	1.21	

* No data on tassles

Table 14. (Continued)

B. July 23, 1976 - (day 71 for stations 1, 3, and 6; day 78 for stations 5 and 8).

	Station 1	3	5	6	8	Mean	sd	N:P
Husks								
Dry mass	17.0	36.7	20.9	18.0	33.0	25.1	9.1	
Total P	.068	.112	.061	.037	.093	.074	.03	6.6:1
Kj. N	.293	.391	.446	.307	.505	.390	.090	
Ears								
Dry mass	4.06	13.0	21.5		16.4	13.7	7.3	
Total P	.019	.051	.091	No sample	.081	.061		13.4:1
Kj. N	.122	.279	.596		.418	.370	.210	
Tassles								
Dry mass	6.70	4.96	6.11	4.48	4.43	5.34	1.02	
Total P	.025	.0085	.017	.010	.010	.014	.006	22:1
Kj. N	.209	.089	.080	.069	.058	.100	.060	
Leaves								
Dry mass	17.3	60.7	64.3	44.9	69.3	51.3	21.0	
Total P	.047	.177	.129	.127	.173	.131	.052	33:1
Kj. N	.258	2.401	1.910	2.078	2.414	1.870	.770	
Stalks								
Dry mass	75.8	107.0	139.0	85.3	111.0	104.0	25.0	
Total P	.195	.190	.245	.193	.289	.222	.044	7:1
Kj. N	.412	.639	.919	.639	.895	.700	.210	
Roots								
Dry mass	20.4	18.4	28.2	26.5	22.2	23.1	4.1	
Total P	.070	.052	.063	.064	.056	.062	.006	9.3:1
Kj. N	.367	.209	.206	.253	.275	.260	.066	
Total								
Dry mass	141.3	240.8	280.0	93.9	256.3	202.5	80.0	
Total P	.424	.591	.606	.431	.700	.550	.120	14.6:1
Kj. N	1.961	4.008	4.157	3.346	4.625	3.619	1.03	

Table 14. (Continued)

C. August 12, 1976 - (day 91 for stations 1, 3, and 6; day 98 for stations 5 and 8).

	Station 1	3	5	6	8	Mean	sd	N/P
Husks								
Dry mass	18.3	21.7	36.4	29.4	39.0	29.0	9.0	
Total P	.025	.033	.055	.042	.075	.046	.020	9.6
Kj. N	.123	.146	.305	.237	.187	.200	.073	
Cobs								
Dry mass	19.9	26.9	10.2	22.0	27.6	21.3	7.01	
Total P	.054	.040	.038	.088	.058	.056	.020	9.3
Kj. N	.070	.121	.337	.627	.293	.235	.140	
Kernels								
Dry mass	37.2	46.5	67.1	-	115.0	66.5	34.7	
Total P	.096	.120	.210	-	.324	.188	.103	10.7
Kj. N	.547	.567	.993	-	1.541	.912	.467	
Tassles								
Dry mass	3.5	2.9	6.1	4.3	5.6	4.48	1.36	
Total P	.005	.005	.008	.009	.0 1	.008	.003	11.6
Kj. N	.030	.032	.041	.056	.052	.042	.012	
Leaves								
Dry mass	39.2	31.2	39.9	62.5	54.4	45.4	12.7	
Total P	.101	.119	.147	.223	.190	.156	.050	14.2
Kj. N	.851	.668	.722	1.600	1.159	1.000	.386	
Stalks								
Dry mass	61.9	70.3	93.5	168.0	203.0	119.0	63.0	
Total P	.110	.153	.251	.450	.516	.296	.180	2.9:1
Roots								
Dry mass	23.1	28.9	25.1	45.5	39.0	32.3	9.6	
Total P	.030	.037	.030	.097	.044	.048	.028	8.9:1
Kj. N	.196	.099	.141	.432	.096	.193	.140	
Total								
Dry mass	203.0	228.0	278.0	332.0*	484.0	305.0	112.0	
Total P	.421	.507	.739	.909	1.218	.759	.321	9.1:1
Kj. N	2.328	1.851	2.730	5.0298	3.620	3.112	1.254	

* No kernels.

Table 14. (Continued)

D. September 3, 1976 - (day 112 for stations 1, 3, and 6; day 119 for stations 5 and 8).

	Station 1	3	5	6	8	Mean	sd	N/P
Husks								
Dry mass	70.1	37.2	54.8	73.2	32.1	48.6	17.3	
Total P	.175	.104	.077	.073	.048	.101	.054	8.3
Kj. N	.470	.350	.543	.307	.154	.379	.170	
Cobs								
Dry mass	58.5	34.1	59.4		44.8	49.2	12.1	
Total P	.094	.095	.083		.040	.078	.026	8.7
Kj. N	.322	.266	.380		.307	.260	.307	
Kernels								
Dry mass	201.0	65.4	231.0		221.0	180.0	77.0	
Total P	.683	.268	1.109		1.017	.769	.381	9.7
Kj. N	4.804	1.184	4.620		2.917	3.381	1.693	
Tassles								
Dry mass	4.55	2.3	4.9	4.6	3.0	3.87	1.32	
Total P	.005	.004	.005	.006	.003	.005	.001	13.7
Kj. N	.026	.021	.051	.040	.018	.031	.014	
Leaves								
Dry mass	70.0	43.8	67.0	56.0	73.1	62.0	12.0	
Total P	.294	.153	.214	.134	.300	.219	.077	12.1
Kj. N	1.316	.784	1.347	1.008	1.572	1.205	.310	
Stalks								
Dry mass	206.0	169.0	105.0	85.7	87.1	131.0	54.0	
Total P	.433	.169	.074	.060	.261	.199	.154	8.2
Kj. N	1.236	1.048	.368	.394	.636	.736	.39	
Roots								
Dry mass	44.2	34.4	36.3	32.2	45.5	38.4	6.0	
Total P	.040	.0344	.036	.042	.073	.045	.016	13.5
Kj. N	.349	.292	.156	.341	.237	.275	.080	
Total								
Dry mass	654.0	386.0	558.0	252.0*	507.0	526.0	111.0	
Total P	1.724	.827	1.600	.315	1.742	1.473	.435	9.1
Kj. N	8.523	3.945	7.465	2.090	5.794	6.432	2.003	

* No kernels.

Table 14. (Continued)

E. October 18, 1976 - (day 157 for stations 1, 3, and 6; day 164 for stations 5 and 8).

	Station 1	3	5	6	8	Mean	sd	N/P
Husks								
Dry mass	38.7	26.1	11.4	58.0	48.6	36.6	18.4	
Total P	.097							9.6
Kj. N	.418	.277	.107	.493	.224	.304	.154	
Cobs								
Dry mass	49.4	35.8	26.7	32.4	36.9	36.2	8.4	
Total P	.046	.030	.018	.066	.028	.038	.019	11.1
Kj. N	.198	.122	.168	.262	.199	.190	.051	
Kernels								
Dry mass	192.0	192.0	185.0	57.4	200.0	165.0	61.0	
Total P	.772	.758	.646	.249	.692	.520	.32	13.2
Kj. N	3.072	4.090	3.423	1.223	3.780	3.118	1.126	
Tassles								
Dry mass	1.54	1.50	3.16	2.43	1.57	2.04	.736	
Total P	.001	.001	.003	.001	.002	.002	.001	26
Kj. N	.013	.010	.025	.030	.017	.019	.008	
Leaves								
Dry mass	52.5	35.3	29.5	59.3	44.0	44.1	12.2	
Total P	.158	.072	.032	.193	.121	.115	.065	10.7
Kj. N	.572	.314	.304	.854	.726	.554	.245	
Stalks								
Dry mass	128.0	110.0	55.5	118.0	123.0	107.0	29.5	
Total P	.307	.204	.035	.408	.140	.219	.145	9.4
Kj. N	.891	.858	.266	1.522	1.110	.929	.455	
Roots								
Dry mass	67.9	58.2	31.0	33.6	29.0	43.9	17.9	
Total P	.061	.056	.018	.044	.023	.040	.019	20
Kj. N	.435	.361	.270	.474	.276	.363	.092	
Total								
Dry mass	530.0	517.0	342.0	703.0	483.0	515.0	129.0	
Total P	1.442	1.178	.760	1.102	1.055	1.107	.245	10.8
Kj. N	5.599	6.032	4.332	4.858	6.332	5.431	.827	

Table 15. Dry weight to fresh plant weight ratios for corn plant parts for watershed 109.

A. July 2, 1976

Roots	Stalks	Leaves	Tassles	Ears	Husks
			Station 1		
.16	.11	.24	-	-	-
			Station 3		
.22	.10	.28	.14	-	-
			Station 5		
.15	.105	.23	.17	-	-
			Station 8		
.195	.099	.271	.298	-	-

B. July 23, 1976

Roots	Stalks	Leaves	Tassles	Ears	Husks
			Station 1		
.21	.17	.33	.54	.14	.15
			Station 3		
.21	.17	.34	.42	.11	.22
			Station 5		
.28	.16	.27	.43	.13	.13
			Station 6		
.21	.16	.21	.32	-	.20
			Station 8		
.21	.15	.28	.31	.10	.20

Table 15. (Continued)

C. August 12, 1976

Roots	Stalks	Leaves	Tassles	Kernels	Cobs	Husks
			Station 1			
.186	.207	.279	.636	.400	.184	.253
			Station 3			
.177	.191	.259	.487	.415	.198	.247
			Stations 5			
.179	.267	.239	.533	.447	.058	.241
			Station 6			
.145	.237	.308	.429	None	.141	.203
			Station 8			
.166	.261	.252	.589	.523	.216	.259

D. September 3, 1976

			Station 1			
.20	.23	.44	.91	.68	.40	.46
			Station 3			
.27	.31	.30	.91	.58	.21	.27
			Station 5			
.18	.19	.50	.82	.64	.35	.33
			Station 6			
.18	.21	.50	.91	-	.	.40
			Station 8			
.19	.22	.71	.86	.64	.42	.35

Table 15. (Continued)

E. October 18, 1976

Roots	Stalks	Leaves	Tassles	Kernels	Cobs	Husks
			Station 1			
.22	.27	.84	.96	.82	.70	.65
			Station 3			
.24	.20	.82	.94	.78	.58	.57
			Station 5			
.18	.26	.67	.93	.82	.67	.50
			Station 6			
.16	.24	.83	.90	.76	.58	.65
			Station 8			
.18	.27	.62	.87	.80	.59	.81

Weed Population and Leaf Data

Investigator: 002

Funding code: 006

Technique:code: 073

Table 16. Checklist of weeds found in cultivated fields of watershed 109 in 1976.

Common name	Scientific name
Bermuda grass	Cynodon sp.
Blackberry	Rubus sp.
Foxtail grass	Setaria sp.
Grape	Vitis sp.
Horse nettle	Solanum carolinense
Ironweed	Vernonia noveboracensis
Milkweed	Asclepias sp.
Morning glory	Ipomea hederacea
Onion	Allium sp.
Panic grass	Panicum sp.
Partridge pea	Cassia fasciculata
Pokeweed	Phytolacca americana
Trumpet creeper	Campsis radicans
Virginia creeper	Parthenocissus sp.

Table 17. Weed data for watershed 109 in fall of 1976.

Station number	Number of plants (#/m^2 ± σ)	Aboveground dry wt. (g/m^2 ± σ)	Leaf area index (m^2/m^2 ± σ)	Leaf number (#/m^2 ± σ)
	Solanum carolinense			
1	6.68 ± 7.76	14.1 ± 20.2	.177 ± .258	90.7 ± 101
2	0	0	0	0
3	0	0	0	0
4	6.69 ± 8.94	18.8 ± 40.3	.214 ± .467	64.4 ± 112
5	2.22 ± 4.52	1.82 ± 5.32	.031 ± .092	16.0 ± 36.5
6	0	0	0	0
7	.444 ± 1.33	1.02 ± 3.07	.003 ± .009	2.22 ± 6.67
8	0	0	0	0
9	5.32 ± 5.29	15.2 ± 23.1	.088 ± .147	23.6 ± 25.5
10	6.67 ± 12.8	24.3 ± 46.7	.155 ± .319	101 ± 199
Total	2.80 ± 3.14	7.52 ± 9.50	.067 ± .085	29.8 ± 40.2
	Cassia fasciculata			
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
7	0	0	0	0
8	0	0	0	0
9	0	0	0	0
10	.889 ± 2.67	3.07 ± 9.20	.010 ± .030	333 ± 1000
Total	.089 ± .281	.307 ± .971	.001 ± .003	33.3 ± 105
	Parthenocissus sp.			
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
7	.889 ± 2.67	.889 ± 2.67	.040 ± .120	125 ± 375
8	1.33 ± 4.00	2.67 ± 8.00	.023 ± .068	15.6 ± 46.7
9	0	0	0	0
10	0	0	0	0
Total	.222 ± .479	.356 ± .860	.006 ± .014	14.1 ± 39.3

Table 17. (Continued)

Vitis sp.

Station number	Number of plants ($\#/m^2 \pm \sigma$)	Aboveground dry wt. ($g/m^2 \pm \sigma$)	Leaf area index ($m^2/m^2 \pm \sigma$)	Leaf number ($\#/m^2 \pm \sigma$)
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
7	0	0	0	0
8	0	0	0	0
9	0	0	0	0
10	1.33 ± 4.0	2.76 ± 8.27	.038 ± .114	39.1 ± 117
Total	.133 ± .421	.276 ± .873	.004 ± .012	3.91 ± 12.4

Rubus sp.

Station number	Number of plants ($\#/m^2 \pm \sigma$)	Aboveground dry wt. ($g/m^2 \pm \sigma$)	Leaf area index ($m^2/m^2 \pm \sigma$)	Leaf number ($\#/m^2 \pm \sigma$)
1	0	0	0	0
2	0	0	0	0
3	.444 ± 1.33	2.89 ± 8.67	.003 ± .009	2.67 ± 8.00
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
7	.444 ± 1.33	.667 ± 2.00	.009 ± .028	4.44 ± 13.3
8	.889 ± 1.76	.889 ± 1.76	.007 ± .015	4.00 ± 9.38
9	1.33 ± 4.00	10.5 ± 31.6	.129 ± .388	21.8 ± 65.3
10	4.44 ± 5.81	5.82 ± 7.98	.089 ± .145	25.3 ± 34.4
Total	.755 ± 1.37	2.08 ± 3.51	.024 ± .046	5.82 ± 9.54

Asclepias sp.

Station number	Number of plants ($\#/m^2 \pm \sigma$)	Aboveground dry wt. ($g/m^2 \pm \sigma$)	Leaf area index ($m^2/m^2 \pm \sigma$)	Leaf number ($\#/m^2 \pm \sigma$)
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	.444 ± 1.33	6.89 ± 20.7	.049 ± .146	9.78 ± 29.3
6	0	0	0	0
7	2.67 ± 4.47	8.71 ± 17.0	.113 ± .216	62.2 ± 144
8	2.22 ± 5.33	26.3 ± 61.7	.041 ± .084	4.89 ± 9.75
9	.444 ± 1.33	5.07 ± 15.2	.045 ± .136	5.33 ± 16.0
10	0	0	0	0
Total	.578 ± 1.01	4.70 ± 8.3	.027 ± .043	8.22 ± 19.3

Table 17. (Continued)

Grass (unidentified)

Station number	Number of plants (#/m^2 ± σ)	Aboveground dry wt. (g/m^2 ± σ)	Leaf area index (m^2/m^2 ± σ)	Leaf number (#/m^2 ± σ)
1	3.56 ± 10.7	1.29 ± 3.87	.022 ± .066	258 ± 775
2	0	0	0	0
3	.444 ± 1.33	.044 ± .133	.000 ± .001	1.78 ± 5.33
4	0	0	0	0
5	.444 ± 1.33	.018 ± .053	.000 ± .001	.889 ± 2.67
6	0	0	0	0
7	0	0	0	0
8	0	0	0	0
9	.444 ± 1.33	.044 ± .133	.000 ± .001	.889 ± 2.67
10	0	0	0	0
Total	.489 ± 1.10	.140 ± .405	.002 ± .007	26.2 ± 81.5

Sedge (unidentified)

Station number	Number of plants (#/m^2 ± σ)	Aboveground dry wt. (g/m^2 ± σ)	Leaf area index (m^2/m^2 ± σ)	Leaf number (#/m^2 ± σ)
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	.889 ± 2.67	.489 ± 1.47	.008 ± .022	5.78 ± 17.33
6	0	0	0	0
7	0	0	0	0
8	0	0	0	0
9	0	0	0	0
10	0	0	0	0
Total	.089 ± .281	.049 ± .155	.001 ± .003	.578 ± 1.83

Setaria sp.

Station number	Number of plants (#/m^2 ± σ)	Aboveground dry wt. (g/m^2 ± σ)	Leaf area index (m^2/m^2 ± σ)	Leaf number (#/m^2 ± σ)
1	.444 ± 1.33	.133 ± .40	.001 ± .001	3.56 ± 10.7
2	.444 ± 1.33	.133 ± .40	.001 ± .001	3.56 ± 10.7
3	.444 ± 1.33	.133 ± .40	.000 ± .001	4.0 ± 12.0
4	0	0	0	0
5	3.11 ± 7.94	1.16 ± 2.92	.011 ± .026	27.6 ± 64.4
6	26.7 ± 30.4	37.0 ± 61.4	.371 ± .710	195 ± 245
7	0	0	0	0
8	0	0	0	0
9	0	0	0	0
10	0	0	0	0
Total	3.11 ± 8.34	3.86 ± 11.7	.038 ± .117	23.4 ± 60.9

Table 17. (Continued)

Panicum sp.

Station number	Number of plants ($\#/m^2 \pm \sigma$)	Aboveground dry wt. ($g/m^2 \pm \sigma$)	Leaf area index ($m^2/m^2 \pm \sigma$)	Leaf number ($\#/m^2 \pm \sigma$)
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	.444 ± 1.33	.267 ± .800	.008 ± .023	3.11 ± 9.33
5	.444 ± 1.33	1.96 ± 5.87	.019 ± .056	5.33 ± 16.0
6	1.33 ± 4.0	.133 ± .400	.004 ± .011	7.56 ± 22.7
7	0	0	0	0
8	0	0	0	0
9	0	0	0	0
10	4.00 ± 12.0	.089 ± .267	13.8 ± 41.3	17.3 ± 52
Total	.622 ± 1.26	.245 ± .609	1.38 ± 4.36	3.33 ± 5.61

Campsis radicans

Station number	Number of plants ($\#/m^2 \pm \sigma$)	Aboveground dry wt. ($g/m^2 \pm \sigma$)	Leaf area index ($m^2/m^2 \pm \sigma$)	Leaf number ($\#/m^2 \pm \sigma$)
1	.444 ± 1.33	3.02 ± 9.07	.006 ± .019	12.9 ± 38.7
2	.444 ± 1.33	3.02 ± 9.07	.006 ± .019	12.9 ± 38.7
3	3.11 ± 4.37	2.93 ± 3.92	.023 ± .039	54.7 ± 96.8
4	13.8 ± 15.0	21.5 ± 33.9	.075 ± .089	194 ± 267
5	.888 ± 1.76	.532 ± 1.13	.005 ± .011	5.32 ± 10.6
6	7.56 ± 9.68	30.1 ± 23.4	.034 ± .041	96.9 ± 128
7	0	0	0	0
8	2.67 ± 2.00	3.02 ± 3.23	.016 ± .027	12.9 ± 12.8
9	6.67 ± 9.16	9.32 ± 13.2	.013 ± .021	22.7 ± 40.4
10	4.44 ± 7.60	11.4 ± 27.4	.006 ± .011	30.2 ± 63.9
Total	4.00 ± 4.34	8.48 ± 10.0	.018 ± .022	44.3 ± 60.0

Ipomea hederacea

Station number	Number of plants ($\#/m^2 \pm \sigma$)	Aboveground dry wt. ($g/m^2 \pm \sigma$)	Leaf area index ($m^2/m^2 \pm \sigma$)	Leaf number ($\#/m^2 \pm \sigma$)
1	0	0	0	0
2	0	0	0	0
3	2.22 ± 5.32	6.62 ± 19.6	.004 ± .010	14.2 ± 37.0
4	.444 ± 1.33	.044 ± .133	.001 ± .003	1.33 ± 4.00
5	4.88 ± 7.69	3.38 ± 5.84	.027 ± .048	41.8 ± 53.4
6	1.78 ± 2.11	.668 ± 1.11	.003 ± .004	6.67 ± 8.48
7	.889 ± 1.76	.800 ± 1.99	.004 ± .008	6.67 ± 13.6
8	.889 ± 1.76	1.33 ± 2.91	.004 ± .008	5.33 ± 10.6
9	.889 ± 1.76	.267 ± .566	.001 ± .003	4.44 ± 10.7
10	.889 ± 1.76	2.18 ± 6.10	.027 ± .081	14.2 ± 37.0
Total	1.29 ± 1.44	1.53 ± 2.10	.007 ± .011	9.46 ± 12.4

Table 17. (Continued)

Allium sp.

Station number	Number of plants ($\#/m^2 \pm \sigma$)	Aboveground dry wt. ($g/m^2 \pm \sigma$)	Leaf area index ($m^2/m^2 \pm \sigma$)	Leaf number ($\#/m^2 \pm \sigma$)
1	0	0	0	0
2	0	0	0	0
3	4.00 ± 12.0	.133 ± .400	*	4.00 ± 12.0
4	0	0	*	0
5	1.33 ± 2.00	.028 ± .052	*	1.33 ± 2.00
6	.444 ± 1.33	.022 ± .067	*	.444 ± 1.33
7	2.22 ± 3.53	.068 ± .100	*	2.22 ± 3.53
8	4.89 ± 5.93	.194 ± .283	*	5.77 ± 6.96
9	.444 ± 1.33	.011 ± .033	*	.444 ± 1.33
10	1.78 ± 2.91	.078 ± .120	*	2.67 ± 4.00
Total	1.51 ± 1.74	.053 ± .066		1.69 ± 1.97

Dicots (unidentified)

Station number	Number of plants ($\#/m^2 \pm \sigma$)	Aboveground dry wt. ($g/m^2 \pm \sigma$)	Leaf area index ($m^2/m^2 \pm \sigma$)	Leaf number ($\#/m^2 \pm \sigma$)
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	.444 ± 1.33	.178 ± .533	.003 ± .008	4.44 ± 13.3
5	0	0	0	0
6	0	0	0	0
7	.889 ± 1.76	.996 ± 2.78	.001 ± .002	7.11 ± 21.3
8	0	0	0	0
9	0	0	0	0
10	0	0	0	0
Total	.133 ± .300	.117 ± .314	.000 ± .001	1.16 ± 2.52

Total weeds per station

Station number	Number of plants ($\#/m^2 \pm \sigma$)	Aboveground dry wt. ($g/m^2 \pm \sigma$)	Leaf area index ($m^2/m^2 \pm \sigma$)	Leaf number ($\#/m^2 \pm \sigma$)
1	7.56 ± 7.06	18.5 ± 18.8	.206 ± .242	365 ± 739
2	.889 ± 1.76	3.16 ± 9.03	.010 ± .021	16.4 ± 38.8
3	10.7 ± 16.5	12.8 ± 21.7	.031 ± .050	77.3 ± 135
4	21.8 ± 10.6	39.9 ± 44.8	.300 ± .445	263 ± 241
5	18.7 ± 18.0	16.5 ± 21.3	.158 ± .188	129 ± 126
6	37.8 ± 37.9	68.0 ± 64.8	.412 ± .692	306 ± 209
7	8.44 ± 8.35	13.2 ± 18.4	.170 ± .288	97.4 ± 144
8	12.9 ± 11.8	34.4 ± 60.1	.091 ± .105	47.1 ± 58.4
9	15.6 ± 13.3	45.0 ± 49.8	.277 ± .414	79.1 ± 85.5
10	21.3 ± 19.9	40.0 ± 51.9	.326 ± .376	563 ± 945
Total	15.6 ± 10.2	29.1 ± 19.7	.198 ± .132	194 ± 175

* Leaf area not determined.

Table 17. (Continued)

Station	Sampling dates
1	August 23, 1976
2	September 8, 1976
3	September 8, 1976
4	September 7, 1976
5	August 23, 1976
6	September 8, 1976
7	September 8, 1976
8	September 7, 1976
9	September 7, 1976
10	September 8, 1976

Corn Plant Heights and Soil Coverage on Watershed 109

Investigator: 002

Funding code: 006

Technique code: 073

Figure 10. Corn height and total plant soil coverage for watershed 109 during the growing season (1976).

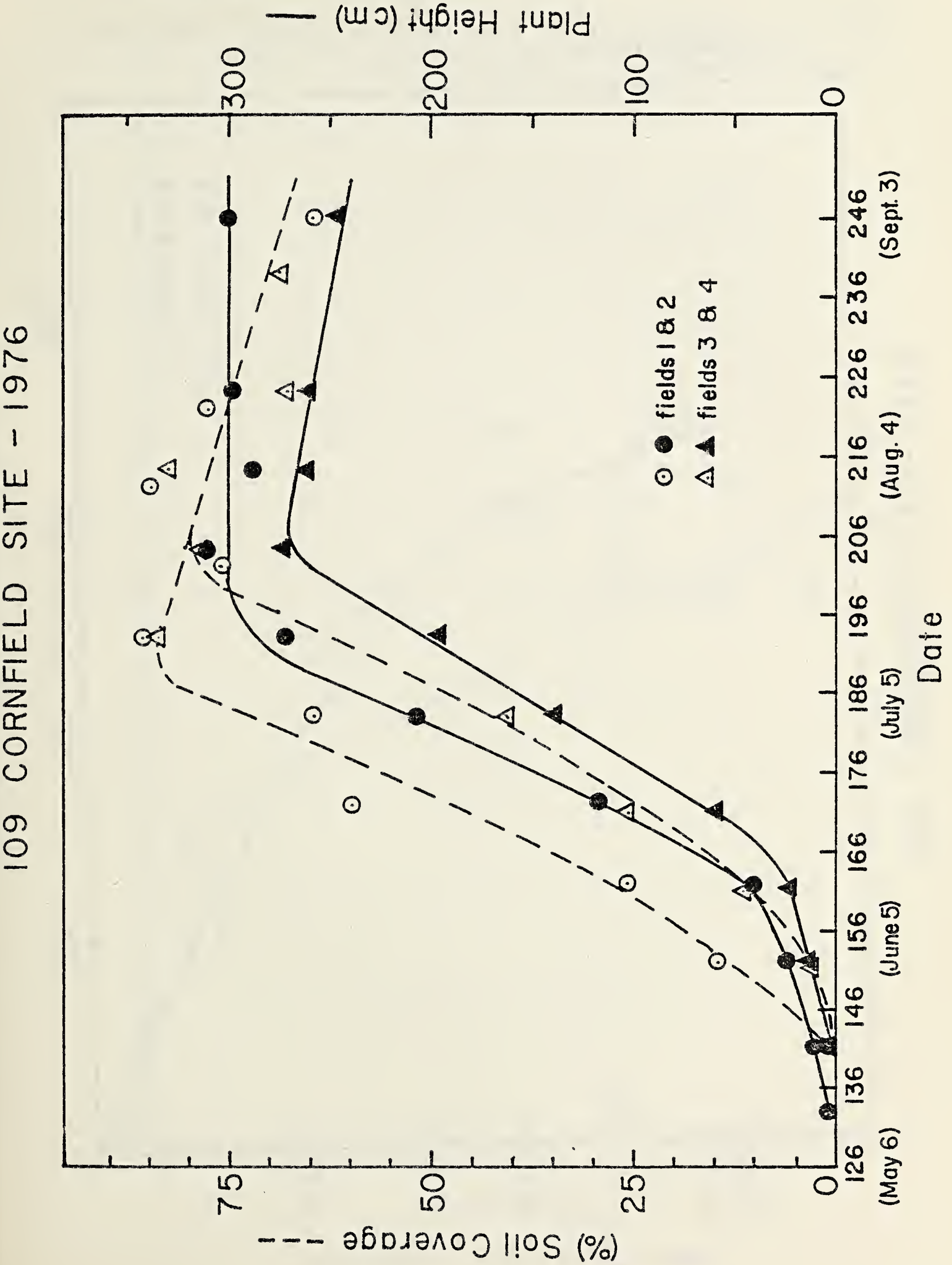


Figure 11. Relationship of corn plant height to plant soil coverage for watershed 109.

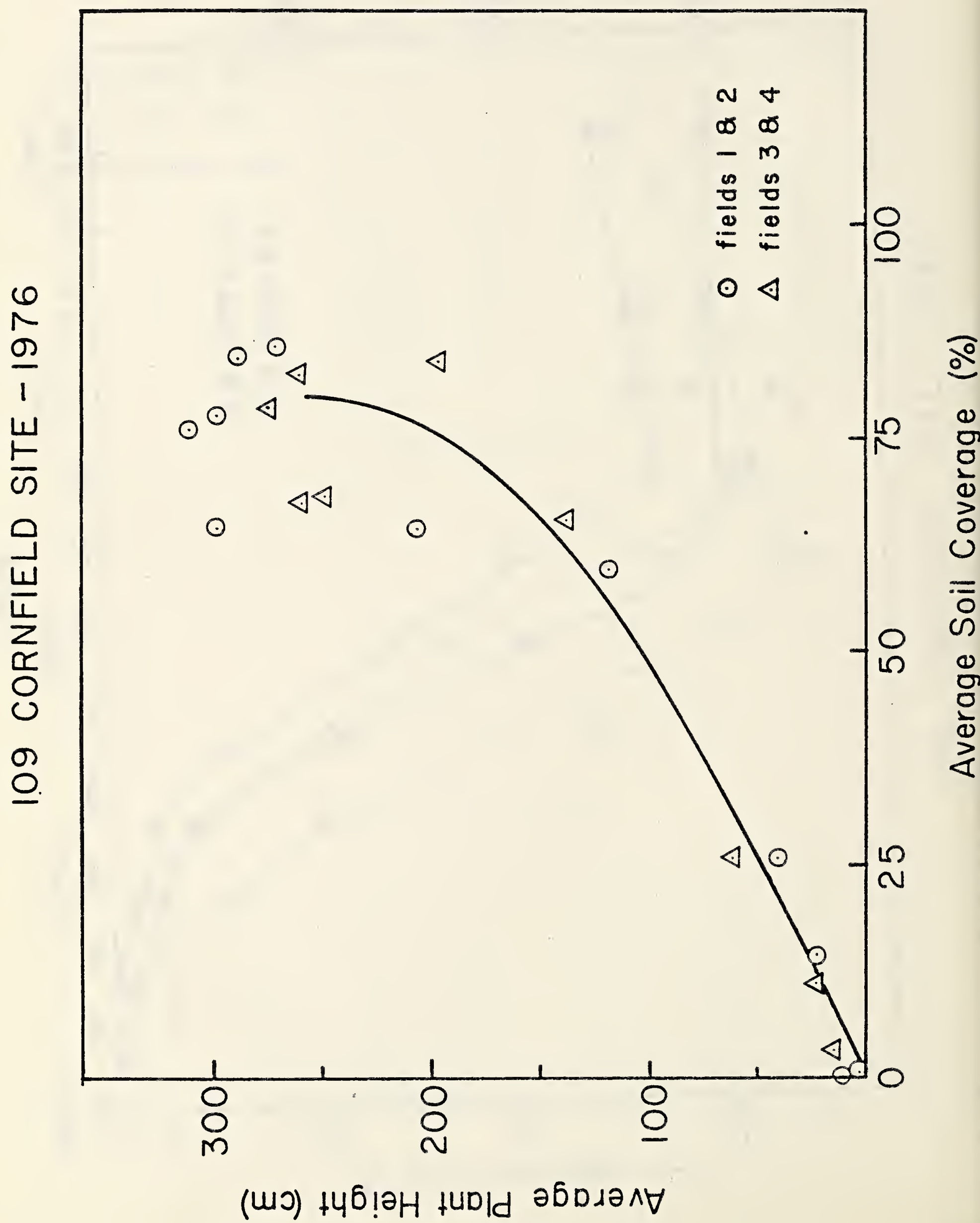
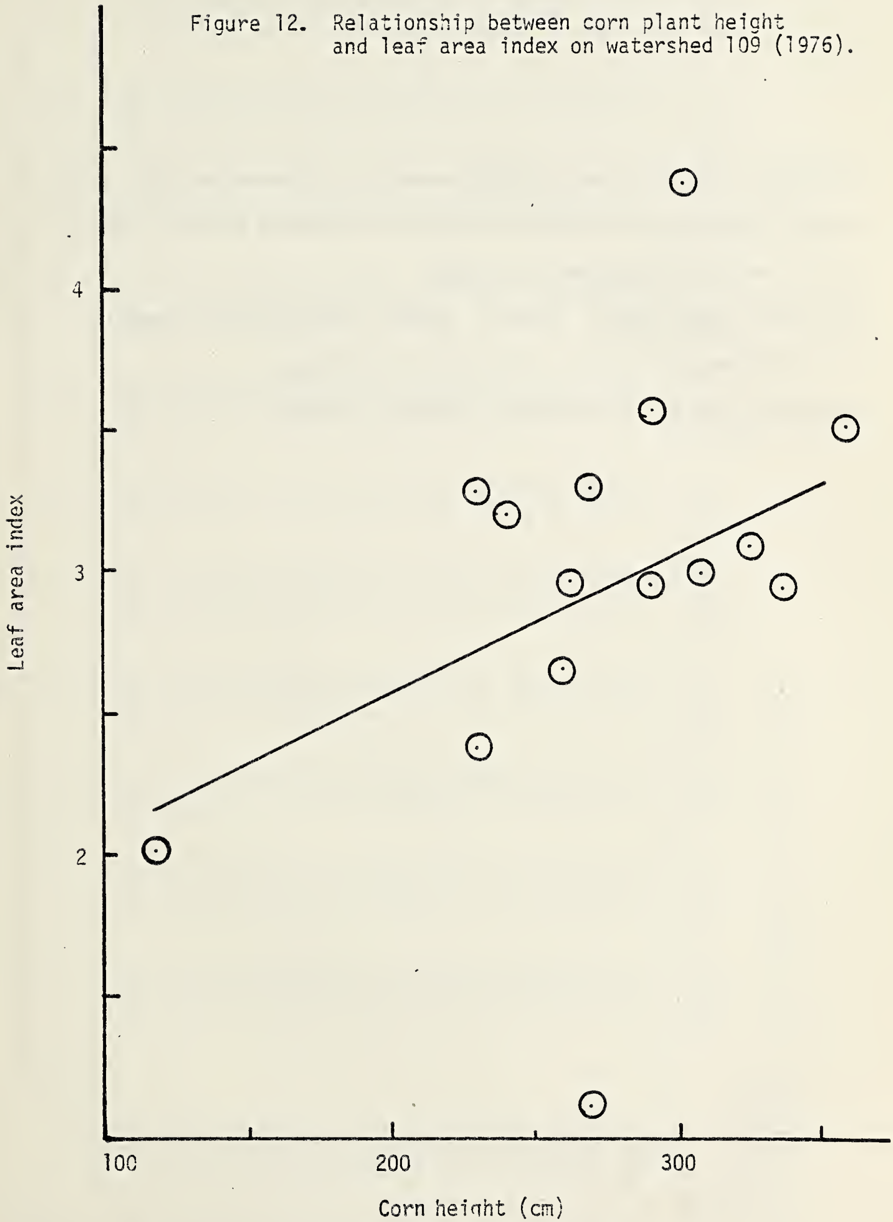


Figure 12. Relationship between corn plant height and leaf area index on watershed 109 (1976).



Sunlight - Incident Total White Light Intensities

Technique - Detector was an Eppley precision pyranometer with a clear quartz dome mounted on the top of west side of main building. Data points were recorded every 5 minutes.

Principal Investigator: David L. Correll, Chesapeake Bay Center for Environmental Studies, Smithsonian Institution.

Research Funding: Environmental Sciences Program.

Table 18. JANUARY 1976.

AVERAGE HOURLY LANGLEYS (g-cal/cm^2-min)
Day of 1976

Hour of Day	1	2	3	4	5	6	7	8	9	10	11
500- 600	0.01	0.01	0.01	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01
600- 700	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
700- 800	0.01	0.06	0.01	0.03	0.04	0.05	0.01	0.01	0.03	0.03	0.02
800- 900	0.15	0.25	0.03	0.23	0.22	0.31	0.03	0.01	0.24	0.23	0.11
900- 1000	0.42	0.39	0.04	0.42	0.45	0.54	0.05	0.06	0.27	0.46	0.13
1000- 1100	0.60	0.46	0.05	0.63	0.64	0.66	0.09	0.12	0.37	0.65	0.20
1100- 1200	0.71	0.38	0.06	0.69	0.72	0.71	0.12	0.21	0.74	0.73	0.15
1200- 1300	0.71	0.38	0.07	0.74	0.74	0.73	0.10	0.31	0.74	0.75	0.15
1300- 1400	0.64	0.29	0.08	0.66	0.66	0.65	0.09	0.54	0.67	0.67	0.17
1400- 1500	0.46	0.22	0.07	0.49	0.49	0.49	0.06	0.24	0.51	0.49	0.12
1500- 1600	0.25	0.13	0.04	0.27	0.27	0.28	0.05	0.08	0.29	0.24	0.06
1600- 1700	0.05	0.03	0.01	0.06	0.04	0.07	0.02	0.04	0.07	0.04	0.02
1700- 1800	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.01
1800- 1900	0.00	0.01	0.01	0.01	0.01	0.00	0.01	0.00	0.00	0.00	0.01
1900- 2000	0.00	0.01	0.01	0.01	0.01	0.00	0.01	0.00	0.00	0.00	0.01
Total (g-cal/cm^2-day)	244.0	161.9	34.3	258.3	262.2	273.5	45.6	103.1	242.0	262.1	73.8

[a]value includes some estimated hourly values.

Table 18. JANUARY 1976.

AVERAGE HOURLY LANGLEYS (g-cal/cm^2-min)
Day of 1976

Hour of Day	12	13	14	15	16	17	18	19	20	21	22
500- 600	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.01	0.01	0.01
600- 700	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01
700- 800	0.01	0.03	0.03	0.03	0.02	0.02	0.04	0.05	0.02	0.03	0.04
800- 900	0.16	0.22	0.20	0.22	0.06	0.09	0.23	0.28	0.03	0.09	0.24
900- 1000	0.42	0.44	0.44	0.45	0.12	0.22	0.47	0.50	0.06	0.12	0.48
1000- 1100	0.65	0.61	0.63	0.65	0.12	0.47	0.67	0.67	0.09	0.26	0.48
1100- 1200	0.70	0.73	0.74	0.75	0.22	0.57	0.76	0.77	0.13	0.24	0.68
1200- 1300	0.75	0.61	0.75	0.76	0.27	0.43	0.79	0.79	0.20	0.15	0.63
1300- 1400	0.66	0.38	0.70	0.69	0.26	0.33	0.72	0.73	0.10	0.15	0.78
1400- 1500	0.48	0.22	0.54	0.51	0.32	0.24	0.56	0.57	0.08	0.10	0.63
1500- 1600	0.25	0.10	0.32	0.17	0.19	0.12	0.33	0.35	0.07	0.11	0.40
1600- 1700	0.06	0.01	0.09	0.05	0.06	0.07	0.10	0.11	0.04	0.06	0.09
1700- 1800	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01
1800- 1900	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.01	0.01	0.00	0.01
1900- 2000	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.01	0.01	0.00	0.01
Total (g-cal/cm^2-day)	250.7	203.4	268.4	256.9	102.2	159.4	286.4	297.2	57.7	86.5	273.1

[a]value includes some estimated hourly values.

Table 18. JANUARY 1976.

AVERAGE HOURLY LANGLEYS (g-cal/cm^2-min)
Day of 1976

Hour of Day	23	24	25	26	27	28	29	30	31
500- 600	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00
600- 700	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00
700- 800	0.04	0.02	0.04[a]	0.01	0.00	0.04	0.03	0.02	0.02
800- 900	0.23	0.20	0.19[a]	0.04[a]	0.01	0.23	0.18	0.11	0.09
900- 1000	0.47	0.45	0.28[a]	0.06[a]	0.03	0.46	0.46	0.22	0.28
1000- 1100	0.65	0.49	0.38[a]	0.08[a]	0.05	0.67	0.66	0.46	0.31
1100- 1200	0.50	0.65	0.36[a]	0.15[a]	0.05	0.79	0.78	0.59	0.19
1200- 1300	0.41	0.74	0.23[a]	0.28[a]	0.06	0.83	0.78	0.66	0.22
1300- 1400	0.43	0.68	0.22[a]	0.32[a]	0.06	0.77	0.54	0.35	0.20
1400- 1500	0.28	0.53	0.03[a]	0.14[a]	0.05	0.63	0.09	0.19	0.25
1500- 1600	0.33	0.33	0.02[a]	0.13[a]	0.03	0.38	0.09	0.09	0.16
1600- 1700	0.16	0.12	0.02[a]	0.01[a]	0.01	0.15	0.07	0.07	0.06
1700- 1800	0.02	0.01	0.00	0.00	0.01	0.01	0.01	0.01	0.01
1800- 1900	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01
1900- 2000	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Total (g-cal/cm^2-day)	218.8	260.4	107.4	74.4	23.6	299.8	222.0	167.8	111.8

[a]value includes some estimated hourly values.

Table 18. FEBRUARY 1976.

AVERAGE HOURLY LANGLEYS (g-cal/cm^2-min)
Day of 1976

Hour of Day	32	33	34	35	36	37	38	39	40	41	42
500- 600	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.01	0.00
600- 700	0.00	0.00	0.01	0.00	0.01	0.01	0.01	0.00	0.00	0.01	0.00
700- 800	0.01	0.05	0.03	0.12	0.02	0.01	0.06	0.04	0.07	0.06	0.00
800- 900	0.04	0.28	0.07	0.31	0.09	0.03	0.29	0.30	0.30	0.33	0.06
900- 1000	0.08	0.47	0.12	0.33	0.47	0.05	0.41	0.55	0.56	0.38	0.19
1000- 1100	0.20	0.72	0.18	0.62	0.46	0.06	0.62	0.74	0.76	0.74	0.26
1100- 1200	0.21	0.82	0.32	0.78	0.37	0.09	0.83	0.86	0.88	0.83	0.21
1200- 1300	0.27	0.89	0.57	0.51	0.44	0.10	0.96	0.91	0.91	0.82	0.22
1300- 1400	0.16	0.83	0.60	0.43	0.50	0.10	0.80	0.83	0.86	0.64	0.23
1400- 1500	0.14	0.68	0.41	0.43	0.31	0.15	0.68	0.68	0.71	0.59	0.34
1500- 1600	0.10	0.45	0.39	0.41	0.20	0.13	0.47	0.23	0.48	0.32	0.48
1600- 1700	0.04	0.19	0.18	0.17	0.09	0.05	0.21	0.08	0.22	0.17	0.22
1700- 1800	0.00	0.02	0.02	0.01	0.02	0.02	0.02	0.02	0.02	0.03	0.02
1800- 1900	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.01	0.00
1900- 2000	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00
Total (g-cal/cm^2-day)	77.5	325.4	176.0	251.1	184.4	51.9	325.9	317.3	347.5	298.9	135.1

[a]value includes some estimated hourly values.

Table 18. FEBRUARY 1976.

AVERAGE HOURLY LANGLEYS (g-cal/cm^2-min)

Hour of Day	Day of 1976										
	43	44	45	46	47	48	49	50	51	52	53
500- 600	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
600- 700	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
700- 800	0.09	0.01	0.08	0.06	0.05	0.02	0.07	0.10	0.07	0.07	0.03
800- 900	0.34	0.09	0.34	0.27	0.16	0.09	0.18	0.36	0.21	0.36	0.03
900- 1000	0.59	0.24	0.59	0.37	0.51	0.57	0.28	0.62	0.59	0.62	0.08
1000- 1100	0.77	0.36	0.79	0.27	0.70	0.67	0.50	0.81	0.86	0.82	0.03
1100- 1200	0.88	0.74	0.91	0.42	0.64	0.50	0.90	0.93	0.78	0.90	0.11
1200- 1300	0.79	0.43	0.94	0.55	0.42	0.76	0.84	0.96	0.85	0.92	0.18
1300- 1400	0.90	0.39	0.88	0.74	0.65	0.38	0.78	0.89	0.91	0.81	0.14
1400- 1500	0.66	0.38	0.73	0.67	0.49	0.62	0.51	0.74	0.75	0.57	0.09
1500- 1600	0.45	0.12	0.50	0.40	0.22	0.37	0.19	0.52	0.53	0.37	0.27
1600- 1700	0.24	0.04	0.23	0.17	0.14	0.17	0.07	0.25	0.26	0.16	0.25
1700- 1800	0.02	0.01	0.02	0.03	0.02	0.02	0.01	0.03	0.03	0.04	0.04
1800- 1900	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1900- 2000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total (g-cal/cm^2-day)	344.9	169.8	360.5	237.8	241.4	250.5	259.5	371.6	350.8	339.4	75.2

[a] value includes some estimated hourly values.

Table 18. FEBRUARY 1976.

Hour of Day	AVERAGE HOURLY LANGLEYS (g-cal/cm^2-min) Day of 1976						
	54	55	56	57	58	59	60
500- 600	0.00	0.00	0.00	0.00	0.00	0.00	0.00
600- 700	0.00	0.00	0.00	0.00	0.00	0.01	0.01
700- 800	0.13	0.14	0.14	0.15	0.14	0.15	0.14
800- 900	0.41	0.41	0.42	0.26	0.41	0.29	0.40
900- 1000	0.68	0.68	0.52	0.47	0.67	0.42	0.66
1000- 1100	0.89	0.88	0.74	0.48	0.79	0.52	0.84
1100- 1200	1.01	1.02	0.74	0.60	0.99	0.71	0.94
1200- 1300	1.03	0.87	0.56	0.59	1.00	0.83	1.00
1300- 1400	0.97	0.66	0.59	0.44	0.94	0.51	0.94
1400- 1500	0.81	0.70	0.71	0.37	0.78	0.41	0.78
1500- 1600	0.57	0.53	0.43	0.28	0.47	0.28	0.56
1600- 1700	0.29	0.29	0.28	0.14	0.25	0.14	0.28
1700- 1800	0.04	0.04	0.07	0.04	0.05	0.04	0.05
1800- 1900	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1900- 2000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total (g-cal/cm^2-day)	411.5	372.0	311.7	228.9	388.5	258.1	395.8

[a]value includes some estimated hourly values.

Table 18. MARCH 1976.

AVERAGE HOURLY LANGLEYS (g-cal/cm^2-min)
Day of 1976

Hour of Day	61	62	63	64	65	66	67	68	69	70	71
500- 600	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.00
600- 700	0.01	0.00	0.01	0.01	0.02	0.00	0.02	0.01	0.00	0.01	0.04
700- 800	0.13	0.02	0.02	0.05	0.21	0.05	0.22	0.05	0.01	0.06	0.27
800- 900	0.32	0.07	0.06	0.08	0.47	0.11	0.52	0.14	0.03	0.12	0.57
900- 1000	0.57	0.11	0.12	0.13	0.70	0.19	0.78	0.54	0.03	0.29	0.77
1000- 1100	0.69	0.15	0.16	0.15	0.88	0.18	0.98	0.66	0.06	0.50	1.02
1100- 1200	0.79	0.16	0.22	0.19	0.98	0.29	1.09	0.41	0.07	0.62	1.13
1200- 1300	0.78	0.16	0.25	0.22	1.00	0.45	1.11	0.63	0.09	0.60	1.15
1300- 1400	0.83	0.15	0.22	0.22	0.90	0.39	1.04	0.43	0.07	0.56	1.06
1400- 1500	0.67	0.16	0.15	0.20	0.72	0.44	0.88	0.29	0.06	0.53	0.87
1500- 1600	0.47	0.16	0.12	0.12	0.11	0.34	0.64	0.20	0.04	0.49	0.63
1600- 1700	0.23	0.05	0.07	0.08	0.02	0.19	0.36	0.10	0.04	0.33	0.33
1700- 1800	0.04	0.01	0.02	0.03	0.02	0.09	0.08	0.02	0.02	0.08	0.07
1800- 1900	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.00
1900- 2000	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.00
Total (g-cal/cm^2-day)	332.0	74.4	89.5	92.9	362.8	162.8	463.6	210.5	37.6	255.9	475.5

[a]value includes some estimated hourly values.

Table 18. MARCH 1976.

AVERAGE HOURLY LANGLEYS (g-cal/cm^2-min)

Hour of Day	Day of 1976: 72	73	74	75	76	77	78	79	80	81	82
500- 600	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00
600- 700	0.04	0.02	0.03	0.02	0.01	0.05	0.07	0.04	0.04	0.07	0.04
700- 800	0.10	0.10	0.26	0.15	0.05	0.30	0.25	0.20	0.26	0.09	0.22
800- 900	0.16	0.37	0.49	0.42	0.09	0.58	0.54	0.46	0.55	0.27	0.40
900- 1000	0.28	0.60	0.78	0.84	0.07	0.75	0.81	0.72	0.82	0.64	0.54
1000- 1100	0.17	0.63	1.00	1.02	0.10	0.57	1.00	1.03	1.00	0.68	0.62
1100- 1200	0.09	0.61	1.14	0.92	0.07	0.42	0.98	1.15	1.11	0.52	0.91
1200- 1300	0.10	0.10	1.16	0.75	0.09	0.49	0.58	1.15	1.13	0.68	0.76
1300- 1400	0.11	0.58	1.09	0.69	0.09	0.85	0.30	0.92	1.05	0.42	1.03
1400- 1500	0.10	0.89	0.92	0.60	0.14	1.02	0.54	0.71	0.88	0.12	0.94
1500- 1600	0.13	0.65	0.67	0.46	0.15	0.67	0.58	0.54	0.63	0.14	0.71
1600- 1700	0.17	0.37	0.39	0.33	0.04	0.40	0.31	0.28	0.34	0.37	0.43
1700- 1800	0.03	0.09	0.10	0.08	0.01	0.11	0.09	0.06	0.08	0.13	0.13
1800- 1900	0.01	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.00	0.00	0.00
1900- 2000	0.01	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00
Total (g-cal/cm^2-day)	91.6	304.2	483.8	377.8	58.5	375.8	368.0	440.0	474.1	248.4	404.1

[a]value includes some estimated hourly values.

Table 18. MARCH 1976.

AVERAGE HOURLY LANGLEYS (g-cal/cm^2-min)
Day of 1976

Hour of Day	83	84	85	86	87	88	89	90	91
500- 600	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
600- 700	0.08	0.08	0.04	0.08	0.07	0.10	0.11	0.01	0.01
700- 800	0.33	0.33	0.21	0.33	0.26	0.39	0.37	0.04	0.06
800- 900	0.60	0.62	0.38	0.62	0.53	0.70	0.47	0.10	0.10
900- 1000	0.86	0.88	0.40	0.86	0.87	0.95	0.48	0.22	0.16
1000- 1100	1.07	1.06	0.25	1.06	0.75	1.14	0.60	0.48	0.15
1100- 1200	1.16	1.17	0.22	1.15	0.19	0.20	0.67	0.45	0.16
1200- 1300	1.16	1.19	0.44	1.14	0.29	0.10	0.74	0.42	0.19
1300- 1400	1.09	1.10	0.70	1.07	0.76	1.16	0.75	0.34	0.15
1400- 1500	0.92	0.93	0.67	0.91	0.32	0.98	0.53	0.28	0.07
1500- 1600	0.70	0.69	0.41	0.69	0.14	0.74	0.35	0.22	0.05
1600- 1700	0.42	0.41	0.22	0.42	0.07	0.46	0.18	0.11	0.02
1700- 1800	0.13	0.13	0.06	0.13	0.05	0.15	0.07	0.04	0.01
1800- 1900	0.01	0.01	0.00	0.01	0.00	0.00	0.00	0.01	0.01
1900- 2000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Total (g-cal/cm^2-day)	511.8	516.5	239.6	507.8	258.7	424.4	320.5	164.4	71.3

[a]value includes some estimated hourly values.

Table 18. APRIL 1976.

AVERAGE HOURLY LANGLEYS (g-cal/cm^2-min)
Day of 1976

Hour of Day	92	93	94	95	96	97	98	99	100	101	102
500- 600	0.00	0.00	0.01[a]	0.00	0.00	0.00	0.01[a]	0.07	0.27	0.29	0.20
600- 700	0.01	0.01	0.16[a]	0.03[a]	0.11	0.13	0.20[a]	0.16	0.57	0.60	0.18
700- 800	0.06	0.07	0.44[a]	0.12[a]	0.37	0.42	0.46[a]	0.32	0.85	0.89	0.07
800- 900	0.22	0.22	0.74[a]	0.27[a]	0.67	0.72	0.75[a]	0.77	0.66	0.93	0.16
900- 1000	0.65	0.53	1.00[a]	0.36[a]	0.93	0.98	1.06[a]	0.43	0.40	1.09[a]	0.32
1000- 1100	1.11	0.26	1.16[a]	0.26[a]	1.13	0.87	1.20[a]	0.27	0.38	0.88[a]	0.18
1100- 1200	0.49	0.44	1.25[a]	0.34[a]	1.30[a]	1.29[a]	1.29[a]	0.31	0.37	1.28[a]	0.09
1200- 1300	0.55	0.37	1.26[a]	0.46[a]	1.31[a]	1.30[a]	1.32[a]	0.89	0.49	1.13	0.15
1300- 1400	0.36	0.58	1.17[a]	0.50	1.22[a]	1.26[a]	1.23[a]	0.93	0.84	0.95	0.24
1400- 1500	0.48	0.18	1.02[a]	1.06	0.96	1.09	1.09[a]	0.65	0.58	0.69	0.34
1500- 1600	0.52	0.28	0.80[a]	0.83	0.56	0.77	0.86[a]	0.28	0.24	0.40	0.29
1600- 1700	0.38	0.30[a]	0.50[a]	0.55	0.36	0.46	0.52[a]	0.08	0.12	0.12	0.14
1700- 1800	0.11	0.12[a]	0.22[a]	0.24	0.14	0.18[a]	0.22[a]	0.00	0.00	0.00	0.01
1800- 1900	0.01	0.04[a]	0.00[a]	0.02	0.01	0.01[a]	0.01[a]	0.00	0.00	0.00	0.00
1900- 2000	0.00	0.02[a]	0.00[a]	0.00	0.00	0.00[a]	0.00[a]	0.00	0.00	0.00	0.00
Total (g-cal/cm^2-day)	297.4	205.2	583.8	302.4	544.2	568.8	613.2	310.4	348.2	555.0	145.5

[a]value includes some estimated hourly values.

Table 18. APRIL 1976.

AVERAGE HOURLY LANGLEYS (g-cal/cm^2-min)

Hour of Day	Day of 1976: 103	104	105	106	107	108	109	110	111	112	113
500- 600	0.29	0.27	0.26	0.21	0.22	0.21	0.23	0.26	0.19	0.27	0.27
600- 700	0.60	0.57	0.56	0.44	0.50	0.50	0.51	0.53	0.49	0.56	0.31
700- 800	0.88	0.86	0.84	0.79	0.75	0.74	0.78	0.79	0.77	0.84	0.38
800- 900	1.12	1.09	1.06	1.04	0.98	0.94	1.01	1.01	0.98	1.05	0.78
900- 1000	1.08[a]	1.01[a]	1.02[a]	0.77	1.10	1.11	1.17	1.17	1.05	1.02[a]	0.46
1000- 1100	1.25[a]	1.24[a]	NO DATA	0.57	0.86	1.18	0.10	0.20	0.88	1.18[a]	0.19
1100- 1200	1.34[a]	1.32[a]		0.85	0.80	1.16	0.60	0.70	0.83	1.27[a]	0.33
1200- 1300	1.35[a]	0.97	1.15	0.89	1.09	1.06	1.10	1.09	0.98	1.14	0.69
1300- 1400	1.01	0.99	0.95	0.74	0.64	0.87	0.91	0.89	0.77	0.96	0.57
1400- 1500	0.74	0.73	0.70	0.66	0.62	0.64	0.65	0.64	0.62	0.65	0.66
1500- 1600	0.45	0.44	0.39	0.41	0.29	0.37	0.38	0.37	0.37	0.27	0.42
1600- 1700	0.16	0.15	0.13	0.09	0.09	0.12	0.13	0.12	0.10	0.16	0.15
1700- 1800	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.01	0.01	0.01	0.01
1800- 1900	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
1900- 2000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
Total (g-cal/cm^2-day)	616.8	579.0	424.2	450.8	477.5	535.4	456.8	469.8	486.1	564.0	317.1

[a]value includes some estimated hourly values.

Table 18. APRIL 1976.

AVERAGE HOURLY LANGLEYS (g-cal/cm^2-min)
Day of 1976

Hour of Day	114	115	116	117	118	119	120	121
500- 600	0.01	0.02	0.00	0.01	0.03	0.03	0.03	0.04
600- 700	0.14	0.18	0.02	0.16	0.25	0.23	0.24	0.24
700- 800	0.21	0.44	0.04	0.43	0.54	0.53	0.53	0.51
800- 900	0.71	0.72	0.12	0.42	0.83	0.82	0.82	0.79
900- 1000	1.00	0.97	0.24	0.30	1.08	1.07	1.07	1.04
1000- 1100	1.02	1.16	0.20	0.46	0.10	0.35	0.27	0.79
1100- 1200	0.67	1.25[a]	0.36	0.52	0.10	0.15	0.27	1.32[a]
1200- 1300	0.12	1.25[a]	0.43	0.19	0.46	0.28	0.22	1.31[a]
1300- 1400	0.49	1.17[a]	0.35	0.29	0.65	0.23	0.31	1.22[a]
1400- 1500	0.93	1.04	0.28	0.31	0.62	0.41	0.36	0.86
1500- 1600	0.81	0.83	0.13	0.44	0.81	0.61	0.69	0.39
1600- 1700	0.56	0.56	0.15	0.25	0.52	0.54	0.56	0.40
1700- 1800	0.29	0.27	0.22	0.21	0.29	0.27	0.29	0.25
1800- 1900	0.04	0.05	0.02	0.05	0.06	0.06	0.06	0.05
1900- 2000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total (g-cal/cm^2-day)	421.1	594.6	154.7	241.8	379.9	334.4	343.9	552.6

[a]value includes some estimated hourly values.

Table 18. MAY 1976.

AVERAGE HOURLY LANGLEYS (g-cal/cm^2-min)

Hour of Day	122	123	124	125	126	127	128	129	130	131	132
	Day of 1976										
500- 600	0.01	0.04	0.04	0.05	0.06	0.05	0.01	0.04	0.07	0.07	0.06
600- 700	0.01	0.23	0.22	0.28	0.27	0.30	0.05	0.22	0.28	0.27	0.23
700- 800	0.05	0.43	0.49	0.57	0.58	0.48	0.12	0.39	0.58	0.58	0.51
800- 900	0.07	0.78	0.56	0.87	0.86	0.76	0.21	0.70	0.88	0.85	0.74
900- 1000	0.11	1.01	0.62	0.77	1.10	0.94	0.43	0.94	1.12	0.98	0.54
1000- 1100	0.09	1.20[a]	NO DATA	1.44[a]	1.28[a]	0.77	0.47	0.63	1.33[a]	0.87	0.57
1100- 1200	0.11	1.31[a]	1.40[a]	1.52[a]	1.38[a]	0.61	0.39	0.19	1.40[a]	0.38	0.67
1200- 1300	0.12	1.33[a]	1.44[a]	1.48[a]	1.36[a]	0.25	0.76	0.15	1.42[a]	0.36	0.39
1300- 1400	0.06	1.18[a]	1.34[a]	1.36[a]	1.28[a]	1.08	0.54	0.77	1.34[a]	0.83	0.46
1400- 1500	0.04	1.00	1.04	1.14[a]	1.06	0.86	0.62	0.81	1.12	1.04	0.32
1500- 1600	0.05	0.73	0.90	0.88	0.84	0.65	0.24	0.65	0.88	0.70	0.19
1600- 1700	0.02	0.45	0.62	0.57	0.55	0.52	0.07	0.46	0.61	0.35	0.10
1700- 1800	0.03	0.23	0.32	0.30	0.23	0.14	0.05	0.31	0.32	0.23	0.09
1800- 1900	0.03	0.04	0.05	0.05	0.09	0.02	0.02	0.11	0.07	0.09	0.05
1900- 2000	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.00
Total (g-cal/cm^2-day)	48.5	597.6	542.4	676.8	656.4	446.4	238.9	382.4	680.4	458.5	295.8

[a]value includes some estimated hourly values.

Table 18. MAY 1976.

AVERAGE HOURLY LANGLEYS (g-cal/cm^2-min)

Hour of Day	Day of 1976										
	133	134	135	136	137	138	139	140	141	142	143
500- 600	0.03	0.05	0.01	0.04	0.01	0.01	0.05	0.07	0.05	0.04	0.10[a]
600- 700	0.21	0.23	0.07	0.14	0.06	0.08	0.32	0.27	0.27	0.14	0.34[a]
700- 800	0.56	0.34	0.12	0.22	0.18	0.16	0.42	0.59	0.54	0.14	0.67[a]
800- 900	0.88	0.64	0.13	0.38	0.50	0.26	0.45	0.75	0.80	0.14	0.91[a]
900- 1000	1.02	0.43	0.36	0.28	0.52	0.11	0.38	0.37	1.03	0.55[a]	1.14[a]
1000- 1100	1.36[a]	0.69	0.49	0.56	0.67	0.49	0.34	0.41	1.26[a]	0.64[a]	1.33[a]
1100- 1200	1.45[a]	0.70	0.42	0.43	0.65	0.31	0.37	0.58	1.35[a]	0.50[a]	1.43[a]
1200- 1300	1.44[a]	0.75	0.52	0.63	0.47	0.23	0.22	0.50	1.40[a]	0.71[a]	1.43[a]
1300- 1400	1.34[a]	0.78	0.57	0.57	0.27	0.56	0.30	0.52	1.32[a]	1.26[a]	1.34[a]
1400- 1500	0.67	0.46	0.90	0.58	0.19	0.49	0.17	0.41	1.13	1.10[a]	1.17[a]
1500- 1600	0.96	0.35	0.62	0.77	0.39	0.71	0.08	0.60	0.85	0.88[a]	0.88[a]
1600- 1700	0.69	0.21	0.36	0.44	0.63	0.62	0.04	0.45	0.33	0.63[a]	0.60[a]
1700- 1800	0.39	0.25	0.19	0.20	0.38	0.29	0.07	0.28	0.27	0.33[a]	0.35[a]
1800- 1900	0.12	0.10	0.06	0.06	0.12	0.11	0.06	0.11	0.07	0.08[a]	0.10[a]
1900- 2000	0.00	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.00	0.00
Total (g-cal/cm^2-day)	667.2	360.6	290.8	319.2	303.2	266.3	197.0	355.9	641.4	428.4	707.4

[a]value includes some estimated hourly values.

Table 18. MAY 1976.

AVERAGE HOURLY LANGLEYS (g-cal/cm^2-min)

Hour of Day	Day of 1976								
	144	145	146	147	148	149	150	151	152
500- 600	0.09[a]	0.10[a]	0.00	0.01	0.01	0.06[a]	0.02[a]	0.00	0.01[a]
600- 700	0.32[a]	0.32[a]	0.09	0.05	0.15	0.30[a]	0.10[a]	0.10[a]	0.06[a]
700- 800	0.65[a]	0.58[a]	0.36	0.10	0.31	0.62[a]	0.21[a]	0.20[a]	0.11[a]
800- 900	0.89[a]	0.78[a]	0.62	0.18	0.64	0.90[a]	0.44[a]	0.28[a]	0.25[a]
900- 1000	1.00[a]	0.88[a]	0.93	0.23	0.91	1.12[a]	0.45[a]	0.32[a]	0.36[a]
1000- 1100	1.26[a]	1.21[a]	0.75	0.18	0.76	1.29[a]	0.25[a]	0.31[a]	0.38[a]
1100- 1200	1.29[a]	1.26[a]	0.90	0.55	0.19	1.33[a]	0.18[a]	0.44[a]	0.83[a]
1200- 1300	1.36[a]	1.38[a]	0.35	0.60	0.45	1.35[a]	0.19[a]	0.76[a]	1.34[a]
1300- 1400	1.03[a]	1.30[a]	0.10	0.67	0.65	1.29[a]	0.14[a]	0.80[a]	1.15[a]
1400- 1500	0.88[a]	1.04[a]	0.36	0.23	0.39	1.11[a]	0.06[a]	0.31[a]	1.09[a]
1500- 1600	0.81[a]	1.01	0.60	0.09	1.04	0.92[a]	0.04[a]	0.20[a]	0.87[a]
1600- 1700	0.48[a]	0.84	0.55	0.06	0.70	0.63[a]	0.01[a]	0.14[a]	0.60[a]
1700- 1800	0.28[a]	0.51	0.39	0.18	0.57	0.37[a]	0.00[a]	0.07[a]	0.16[a]
1800- 1900	0.10[a]	0.27	0.15	0.15	0.31	0.06[a]	0.00[a]	0.00[a]	0.04[a]
1900- 2000	0.00	0.08	0.02	0.05	0.19	0.00	0.00	0.00	0.00
Total (g-cal/cm^2-day)	626.4	693.6	370.9	199.8	467.9	681.0	125.4	235.8	435.0

[a]value includes some estimated hourly values.

Table 18. JUNE 1976.

AVERAGE HOURLY LANGLEYS (g-cal/cm^2-min)
Day of 1976

Hour of Day	153	154	155	156	157	158	159	160	161	162	163
500- 600	0.08[a]	0.00	0.01	0.14[a]	0.16	0.17	0.16	0.12	0.12	0.14	0.11
600- 700	0.24[a]	0.08	0.10	0.38[a]	0.42	0.43	0.42	0.43	0.26	0.37	0.26
700- 800	0.57[a]	0.14	0.31	0.70[a]	0.71	0.71	0.69	0.63	0.53	0.63	0.61
800- 900	0.85[a]	0.06	0.59	0.97[a]	0.99	0.98	0.88	0.92	0.73	0.87	0.83
900- 1000	0.85	0.19	0.69	1.20[a]	0.87	0.78	0.63	1.13	0.82	1.09	0.96
1000- 1100	1.04	0.11	0.71	0.83	1.42[a]	1.30[a]	1.35[a]	NO DATA	0.93	1.16[a]	1.18
1100- 1200	0.81	0.11	1.17[a]	0.92	1.40[a]	1.42[a]	1.31[a]		0.90	1.25[a]	1.27[a]
1200- 1300	0.16	0.16	1.01[a]	0.96	1.31[a]	1.40[a]	1.30[a]		1.09	1.25[a]	1.27[a]
1300- 1400	0.92	0.11	0.84[a]	0.80	1.14[a]	1.30[a]	0.84[a]	0.73	1.07	1.14[a]	1.09
1400- 1500	0.43	0.13	0.71[a]	0.70	1.11	1.09	1.08	0.95	0.94	0.95	0.89
1500- 1600	0.84	0.15	0.67[a]	0.60	0.88	0.80	0.77	0.75	0.71	0.78	0.68
1600- 1700	0.64	0.07	0.48[a]	0.48	0.61	0.48	0.47	0.49	0.45	0.41	0.45
1700- 1800	0.45	0.04	0.30[a]	0.23	0.33	0.30	0.20	0.24	0.20	0.20	0.21
1800- 1900	0.16	0.02	0.08[a]	0.07	0.08	0.07	0.02	0.06	0.04	0.04	0.05
1900- 2000	0.09	0.02	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Total (g-cal/cm^2-day)	487.8	83.2	460.2	538.8	686.4	673.8	607.2	387.0	527.2	616.8	591.6

[a]value includes some estimated hourly values.

Table 18. JUNE 1976.

AVERAGE HOURLY LANGLEYS (g-cal/cm^2-min)

Hour of Day	164	165	166	167	168	169	170	171	172	173	174
	Day of 1976										
500- 600	0.10	0.10	0.07	0.03	0.06	0.15	0.01	0.07	0.06	0.12	0.06
600- 700	0.22	0.30	0.22	0.12	0.25	0.38	0.17	0.19	0.16	0.33	0.19
700- 800	0.45	0.57	0.41	0.26	0.51	0.50	0.37	0.18	0.19	0.48	0.31
800- 900	0.76	0.85	0.60	0.39	0.75	0.75	0.50	0.30	0.32	0.45	0.44
900- 1000	1.00	1.06	0.67	0.48	0.96	0.60	0.71	0.60	0.56	0.64	0.50
1000- 1100	0.96	0.81	0.72	0.57	1.10	0.40	0.61	0.17	0.34	0.51	0.55
1100- 1200	0.10	0.19	0.29	0.70	1.17	0.45	0.38	0.30	NO DATA	0.35	0.35
1200- 1300	0.36	0.07	0.32	0.49	1.18	0.59	0.61	0.13	NO DATA	0.53	0.81
1300- 1400	0.76	0.33	0.44	0.28	1.08	0.49	0.60	0.21	0.30	0.52	0.61
1400- 1500	0.91	1.07	0.21	0.64	0.88	0.49	0.60	1.08	1.09	0.68	0.70
1500- 1600	0.66	0.85	0.16	0.29	0.61	0.49	0.48	0.86	0.87	0.38	0.36
1600- 1700	0.46	0.61	0.16	0.34	0.43	0.46	0.49	0.59	0.40	0.05	0.30
1700- 1800	0.18	0.33	0.05	0.17	0.11	0.14	0.23	0.30	0.30	0.09	0.29
1800- 1900	0.02	0.08	0.01	0.07	0.07	0.03	0.05	0.08	0.13	0.03	0.09
1900- 2000	0.00	0.01	0.01	0.00	0.00	0.01	0.00	0.00	0.01	0.01	0.01
Total (g-cal/cm^2-day)	417.0	434.5	261.0	291.4	550.0	356.9	348.7	303.7	283.8	310.2	334.5

[a]value includes some estimated hourly values.

Table 18. JUNE 1976.

AVERAGE HOURLY LANGLEYS (g-cal/cm^2-min)
Day of 1976

Hour of Day	175	176	177	178	179	180	181	182
500- 600	0.06	0.04	0.04	0.09	0.05	0.02	0.10	0.08
600- 700	0.19	0.13	0.21	0.33	0.18	0.06	0.38	0.31
700- 800	0.31	0.18	0.29	0.60	0.27	0.12	0.56	0.57
800- 900	0.44	0.48	0.78	0.87	0.51	0.18	0.86	0.83
900- 1000	0.50	0.45	0.81	0.82	1.04	0.45	1.09	1.04
1000- 1100	0.55	0.75	1.20[a]	0.25	0.86	0.45	0.84[a]	0.69
1100- 1200	0.35	0.18	1.12[a]	0.33	0.52	0.49	NO DATA	0.34[a]
1200- 1300	0.81	0.27	0.98[a]	0.18	0.56	0.08	1.32[a]	0.82[a]
1300- 1400	0.61	0.47	1.20[a]	0.66	0.33	0.41	1.04[a]	0.69
1400- 1500	0.70	0.77	1.09	0.66	0.49	0.95	1.04	1.02
1500- 1600	0.36	0.92	0.89	0.59	0.83	0.85	0.89	0.83
1600- 1700	0.30	0.64	0.55	0.45	0.47	0.60	0.62	0.43
1700- 1800	0.29	0.22	0.13	0.22	0.28	0.21	0.37	0.20
1800- 1900	0.09	0.06	0.10	0.08	0.05	0.11	0.12	0.11
1900- 2000	0.01	0.01	0.02	0.01	0.01	0.02	0.01	0.01
Total (g-cal/cm^2-day)	334.5	333.8	561.6	368.2	386.2	301.2	554.4	478.2

[a]value includes some estimated hourly values.

Table 18. JULY 1976.

AVERAGE HOURLY LANGLEYS (g-cal/cm^2-min)
Day of 1976

Hour of Day	183	184	185	186	187	188	189	190	191	192	193
500- 600	0.07	0.13	0.12	0.05	0.07	0.07[a]	0.02	0.06	0.04	0.07	0.02
600- 700	0.27	0.18	0.35	0.17	0.20	0.27[a]	0.09	0.22	0.12	0.25	0.04
700- 800	0.51	0.54	0.60	0.55	0.61[a]	0.46[a]	0.29	0.46	0.33	0.53	0.03
800- 900	0.54	0.76	0.86	0.79	0.84[a]	0.74[a]	0.40	0.74	0.57	0.80	0.01
900- 1000	0.49	0.54	1.09	1.01	0.86[a]	1.03[a]	0.40	0.93	0.95	1.05	0.02
1000- 1100	0.40	0.35	1.20[a]	1.16	0.97[a]	1.25[a]	0.46	1.02	1.13	1.12	0.06
1100- 1200	0.45	0.17	1.06[a]	0.98[a]	1.24[a]	1.27[a]	0.69	0.74	0.20	0.98	0.25
1200- 1300	0.91	0.54	0.91[a]	0.68[a]	1.37[a]	1.20[a]	0.50	0.87	0.19	0.83	0.91
1300- 1400	0.61	0.73	0.30[a]	0.98[a]	1.22[a]	1.24[a]	0.78	0.63	0.39	0.67	0.65
1400- 1500	0.44	0.67	0.46[a]	0.58[a]	1.13[a]	1.05	0.69	0.79	0.74	0.62	0.61
1500- 1600	0.67	0.65	0.22[a]	0.66[a]	0.92[a]	0.79	0.52	0.64	0.64	0.39	0.84
1600- 1700	0.27	0.46	0.08[a]	0.16[a]	0.64[a]	0.44	0.54	0.25	0.53	0.64	0.48
1700- 1800	0.11	0.25	0.06[a]	0.06[a]	0.42[a]	0.30	0.06	0.11	0.25	0.17	0.13
1800- 1900	0.12	0.08	0.02[a]	0.07[a]	0.14[a]	0.12	0.01	0.01	0.13	0.06	0.01
1900- 2000	0.01	0.01	0.00	0.02[a]	0.02[a]	0.01	0.01	0.00	0.02	0.01	0.01
Total (g-cal/cm^2-day)	353.1	364.1	439.8	471.6	639.0	614.4	328.0	449.6	374.4	491.1	244.6

[a]value includes some estimated hourly values.

Table 18. JULY 1976.

AVERAGE HOURLY LANGLEYS (g-cal/cm^2-min)
Day of 1976

Hour of Day	194	195	196	197	198	199	200	201	202	203	204
500- 600	0.07	0.09	0.08	0.03	0.05	0.07	0.06	0.07	0.08	0.06	0.02
600- 700	0.30	0.32	0.32	0.22	0.18	0.27	0.25	0.28	0.28	0.27	0.09
700- 800	0.59	0.60	0.60	0.29	0.47	0.55	0.64	0.55	0.52	0.32	0.22
800- 900	0.72	0.85	0.86	0.42	0.73	0.83	0.85	0.82	0.77	0.58	0.28
900- 1000	0.95	1.08	1.07	0.89	1.05	0.99	1.09	1.05	1.00	0.67	0.34
1000- 1100	0.49	0.31	0.84	0.69	0.64	1.32[a]	1.30[a]	1.26[a]	1.14	0.55	0.46
1100- 1200	0.52[a]	0.37	0.82	NO DATA	0.25	1.48[a]	1.42[a]	1.36[a]	1.35[a]	0.23	0.47
1200- 1300	1.42[a]	0.34	0.87	NO DATA	0.16	1.56[a]	1.42[a]	1.42[a]	1.26[a]	0.16	0.56
1300- 1400	1.32[a]	0.40	0.60	0.97	0.71	1.38[a]	1.38[a]	1.14[a]	0.92[a]	0.56	0.69
1400- 1500	1.18[a]	0.68	0.49	0.96	0.64	1.24[a]	1.20[a]	1.04	0.96	0.69	0.58
1500- 1600	0.87	0.54	0.50	0.44	0.57	0.85	0.86	0.81	0.79	0.42	0.14
1600- 1700	0.59	0.43	0.30	0.03	0.10	0.64	0.63	0.55	0.54	0.36	0.04
1700- 1800	0.39	0.29	0.11	0.21	0.00	0.37	0.35	0.30	0.28	0.09	0.08
1800- 1900	0.13	0.07	0.07	0.06	0.02	0.11	0.11	0.10	0.10	0.00	0.04
1900- 2000	0.03	0.01	0.01	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.02
Total (g-cal/cm^2-day)	574.2	384.3	453.2	318.5	334.3	699.6	694.2	645.6	600.0	300.2	244.5

[a]value includes some estimated hourly values.

Table 18. JULY 1976.

AVERAGE HOURLY LANGLEYS (g-cal/cm^2-min)

Hour of Day	Day of 1976								
	205	206	207	208	209	210	211	212	213
500- 600	0.01	0.06[a]	0.08[a]	0.08[a]	0.07[a]	0.06[a]	0.01[a]	0.17	0.12
600- 700	0.02	0.26[a]	0.32[a]	0.26[a]	0.27[a]	0.25[a]	0.06	0.36	0.36
700- 800	0.07	0.52[a]	0.37[a]	0.58[a]	0.50[a]	0.48[a]	0.15	0.59	0.58
800- 900	0.11	0.80[a]	0.87[a]	0.86[a]	0.71[a]	0.74[a]	0.50	0.83	0.83
900- 1000	0.15	1.04[a]	1.00[a]	1.12[a]	1.02[a]	0.98[a]	0.88	1.00	0.93
1000- 1100	0.44[a]	1.05[a]	1.26[a]	1.25[a]	1.18[a]	1.02[a]	0.78	0.76	0.83
1100- 1200	0.35[a]	1.12[a]	1.45[a]	1.36[a]	1.01[a]	1.28[a]	0.76	0.70	0.71
1200- 1300	0.54[a]	1.03[a]	1.44[a]	1.35[a]	0.88[a]	1.24[a]	0.95	0.62	1.03
1300- 1400	0.58[a]	1.24[a]	1.28[a]	1.28[a]	0.70[a]	1.06[a]	1.02	0.57	0.68
1400- 1500	0.54[a]	1.04[a]	1.18[a]	1.14[a]	0.43[a]	0.78[a]	0.80	0.41	0.67
1500- 1600	0.23[a]	0.86[a]	1.02[a]	0.92[a]	0.33[a]	0.51[a]	0.49	0.22	0.49
1600- 1700	0.21[a]	0.44[a]	0.74[a]	0.68[a]	0.38[a]	0.25[a]	0.06	0.10	0.26
1700- 1800	0.10[a]	0.18[a]	0.33[a]	0.37[a]	0.25[a]	0.05[a]	0.00	0.06	0.13
1800- 1900	0.01[a]	0.08[a]	0.13[a]	0.12[a]	0.10[a]	0.00	0.01	0.01	0.02
1900- 2000	0.00	0.01[a]	0.01[a]	0.00	0.00	0.00	0.00	0.00	0.00
Total (g-cal/cm^2-day)	201.6	583.8	720.0	682.2	469.8	522.0	388.2	385.9	460.2

[a]value includes some estimated hourly values.

Table 18. AUGUST 1976.

AVERAGE HOURLY LANGLEYS (g-cal/cm^2-min)
Day of 1976

Hour of Day	214	215	216	217	218	219	220	221	222	223	224
500- 600	0.03	0.03	0.03	0.03	0.03	0.02	0.04[a]	0.04[a]	0.01[a]	0.01	0.01
600- 700	0.21	0.24	0.23	0.19	0.18	0.17	0.14[a]	0.08[a]	0.02[a]	0.15	0.13
700- 800	0.49	0.35	0.49	0.45	0.46	0.41	0.33[a]	0.12[a]	0.12[a]	0.38	0.36
800- 900	0.74	0.62	0.66	0.74	0.76	0.66	0.32[a]	0.18[a]	0.18	0.57	0.66
900- 1000	0.72	0.83	0.86	0.97	0.93	0.90	0.32[a]	0.38[a]	0.16	0.81	0.92
1000- 1100	0.21	0.70	0.85	0.92	1.03	1.08	0.64[a]	0.32[a]	0.16	1.11	0.74
1100- 1200	0.36	0.89	1.26[a]	1.11[a]	1.24[a]	1.18	0.66[a]	0.84[a]	0.18	1.36[a]	0.17
1200- 1300	0.26	0.79	1.37[a]	1.31[a]	1.24[a]	1.08	0.40[a]	1.09[a]	0.11	1.34[a]	0.19
1300- 1400	0.33	0.72	1.28[a]	1.28[a]	1.28[a]	1.18	0.16[a]	0.36[a]	0.08	1.30[a]	0.40
1400- 1500	0.68	0.92	1.14	1.16[a]	0.89	1.16	0.25[a]	0.42[a]	0.10	1.07	0.95
1500- 1600	0.63	0.77	0.89	0.78	0.54	1.16	0.18[a]	0.26[a]	0.07	0.59	0.83
1600- 1700	0.32	0.31	0.61	0.52	0.54	0.87	0.13[a]	0.27[a]	0.05	0.55	0.58
1700- 1800	0.36	0.13	0.41	0.29	0.17	0.17[a]	0.08[a]	0.10[a]	0.05	0.26	0.33
1800- 1900	0.04	0.05	0.12	0.08	0.04	0.06[a]	0.02[a]	0.04[a]	0.05	0.05	0.08
1900- 2000	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.01[a]	0.02	0.03	0.00
Total (g-cal/cm^2-day)	323.4	442.4	612.0	590.4	559.8	606.0	220.2	270.6	81.6	574.8	381.2

[a]value includes some estimated hourly values.

Table 18. AUGUST 1976.

AVERAGE HOURLY LANGLEYS (g-cal/cm^2-min)
Day of 1976

Hour of Day	225	226	227	228	229	230	231	232	233	234	235
500- 600	0.02	0.02	0.02	0.02	0.01	0.03	0.02	0.02	0.03	0.03	0.05
600- 700	0.19	0.18	0.16	0.15	0.15	0.24	0.20	0.21	0.19	0.17	0.24
700- 800	0.40	0.41	0.41	0.33	0.28	0.43	0.48	0.50	0.46	0.55	0.52
800- 900	0.69	0.67	0.62	0.62	0.75	0.78	0.76	0.77	0.77	0.77	0.74
900- 1000	0.93	0.89	0.89	0.61	0.68	1.02	1.01	1.01	1.02	1.02	1.00
1000- 1100	1.11	1.07	1.03	0.75	0.79	1.25[a]	1.25[a]	1.24[a]	1.08	1.24[a]	1.16
1100- 1200	0.78	1.18	1.12	0.66	1.23[a]	1.34[a]	1.34[a]	1.36[a]	1.34[a]	1.34[a]	1.24
1200- 1300	0.83	1.06	1.16	0.61	1.10[a]	1.32[a]	1.35[a]	1.40[a]	1.26[a]	1.35[a]	1.24
1300- 1400	1.08	1.09	1.07	0.79	1.12[a]	1.24[a]	1.26[a]	1.27[a]	1.10[a]	1.26[a]	1.16
1400- 1500	0.86	0.94	0.87	0.22	1.07	1.01	1.04	1.05	1.06	1.04	1.01
1500- 1600	0.54	0.71	0.60	0.02	0.84	0.79	0.80	0.82	0.81	0.81	0.82
1600- 1700	0.53	0.36	0.24	0.13	0.56	0.54	0.53	0.57	0.56	0.54	0.50
1700- 1800	0.25	0.09	0.03	0.19	0.28	0.25	0.25	0.28	0.21	0.24	0.23
1800- 1900	0.05	0.03	0.00	0.04	0.03	0.03	0.03	0.03	0.03	0.01	0.04
1900- 2000	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.01
Total (g-cal/cm^2-day)	497.7	522.2	495.4	309.1	534.0	616.2	619.2	631.8	595.2	622.2	597.6

[a]value includes some estimated hourly values.

Table 18. AUGUST 1976.

AVERAGE HOURLY LANGLEYS (g-cal/cm^2-min)
Day of 1976

Hour of Day	236	237	238	239	240	241	242	243	244
500- 600	0.00	0.01	0.01	0.01	0.01	0.00	0.01	0.02	0.02
600- 700	0.13	0.11	0.06	0.10	0.10	0.07	0.13	0.21	0.17
700- 800	0.37	0.28	0.23	0.30	0.26	0.20	0.36	0.51	0.39
800- 900	0.62	0.54	0.36	0.53	0.53	0.31	0.66	0.78	0.76
900- 1000	0.86	0.75	0.62	0.76	0.70	0.37	0.87	1.02	1.01
1000- 1100	1.02	0.91	0.71	0.92	0.82	0.51	1.06	1.24[a]	1.17
1100- 1200	1.13	0.97	0.74	1.01	0.90	0.60	1.10	1.32[a]	1.32[a]
1200- 1300	1.07	0.79	0.81	1.04	0.72	0.53	0.82	1.34[a]	1.29[a]
1300- 1400	1.08	0.87	0.78	0.95	0.19	0.51	0.63	1.24[a]	1.15
1400- 1500	0.94	0.77	0.78	0.79	0.04	0.61	0.84	1.01	0.98
1500- 1600	0.73	0.58	0.56	0.50	0.05	0.49	0.68	0.76	0.87
1600- 1700	0.49	0.37	0.32	0.34	0.07	0.28	0.42	0.48	0.64
1700- 1800	0.22	0.14	0.15	0.13	0.07	0.11	0.15	0.19	0.32
1800- 1900	0.02	0.02	0.02	0.01	0.02	0.01	0.01	0.00	0.14
1900- 2000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total (g-cal/cm^2-day)	520.8	425.8	369.5	443.6	269.1	276.3	463.6	607.2	613.8

[a]value includes some estimated hourly values.

Table 18. SEPTEMBER 1976.

AVERAGE HOURLY LANGLEYS (g-cal/cm^2-min)
Day of 1976

Hour of Day	245	246	247	248	249	250	251	252	253	254	255
500- 600	0.06	0.03	0.03	0.04	0.02	0.03	0.05[a]	0.05[a]	0.11	0.10	0.27
600- 700	0.36	0.12	0.16	0.24	0.22	0.26	0.23[a]	0.24[a]	0.33	0.12	0.49
700- 800	0.60	0.22	0.26	0.41	0.45	0.52	0.53[a]	0.52[a]	0.59	0.21	0.79
800- 900	0.87	0.26	0.22	0.70	0.69	0.80	0.79[a]	0.78[a]	0.89	0.26	1.02
900- 1000	0.91	0.34	0.31	0.68	0.89	1.04	1.04[a]	1.12[a]	1.06	0.16	1.04[a]
1000- 1100	0.65	0.61	0.31	0.67	1.06	1.24[a]	1.19[a]	1.19[a]	1.18	0.25	1.18[a]
1100- 1200	0.56	0.49	0.57	0.24	1.13	1.32[a]	1.26[a]	1.26[a]	1.01	0.41	1.24[a]
1200- 1300	0.54	0.51	0.15	0.29	0.64	1.31[a]	1.23[a]	1.24[a]	1.17	0.70	1.22[a]
1300- 1400	0.88	0.50	0.50	0.55	0.50	1.24[a]	1.13[a]	1.13[a]	1.01	0.69	1.11
1400- 1500	0.91	0.63	1.08	0.65	0.83	1.05	0.96[a]	0.92[a]	0.79	0.94	0.89
1500- 1600	0.72	0.61	0.83	0.64	0.72	0.81	0.71[a]	0.71[a]	0.53	0.67	0.60
1600- 1700	0.35	0.56	0.45	0.46	0.32	0.54	0.44[a]	0.40[a]	0.27	0.34	0.31
1700- 1800	0.20	0.30	0.16	0.22	0.18	0.24	0.15[a]	0.14[a]	0.07	0.11	0.08
1800- 1900	0.04	0.03	0.03	0.03	0.04	0.03	0.04[a]	0.03[a]	0.01	0.01	0.01
1900- 2000	0.00	0.00	0.00	0.01	0.00	0.00	0.03[a]	0.03[a]	0.02	0.01	0.01
Total (g-cal/cm^2-day)	461.8	313.7	305.7	351.1	462.9	625.8	536.8	585.6	545.7	299.5	615.6

[a]value includes some estimated hourly values.

Table 18. SEPTEMBER 1976.

AVERAGE HOURLY LANGLEYS (g-cal/cm^2-min)
Day of 1976

Hour of Day	256	257	258	259	260	261	262	263	264	265	266
500- 600	0.20	0.22	0.20	0.14	0.09	0.11	0.19	0.22	0.28	0.22	0.24
600- 700	0.49	0.43	0.41	0.20	0.11	0.21	0.38	0.47	0.46	0.42	0.45
700- 800	0.75	0.70	0.81	0.28	0.12	0.38	0.80	0.74	0.66	0.48	0.75
800- 900	0.98	0.96	0.93	0.34	0.14	0.47	0.90	0.96	0.87	0.27	1.02
900- 1000	1.07	1.13	1.12	0.34	0.18	0.59	1.08	1.14	1.07	0.32	1.10[a]
1000- 1100	1.16[a]	1.14[a]	1.12[a]	0.29	0.18	0.42	0.63	1.10[a]	1.17	0.25	1.14[a]
1100- 1200	1.23[a]	1.21[a]	1.18[a]	0.24	0.21	0.38	0.45	1.16[a]	0.64	0.38	1.20[a]
1200- 1300	1.18[a]	1.19[a]	1.06	0.24	0.27	0.58	0.62	1.16[a]	0.77	0.44	1.20[a]
1300- 1400	1.04	0.95	0.96	0.25	0.42	0.81	0.49	1.10[a]	0.89	0.23	1.08
1400- 1500	0.82	0.73	0.76	0.21	0.29	0.71	0.41	0.73	0.64	0.22	0.86
1500- 1600	0.57	0.44	0.24	0.13	0.28	0.43	0.25	0.48	0.30	0.30	0.60
1600- 1700	0.28	0.25	0.14	0.11	0.15	0.19	0.17	0.23	0.13	0.26	0.29
1700- 1800	0.06	0.06	0.04	0.06	0.04	0.06	0.07	0.06	0.05	0.07	0.09
1800- 1900	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1900- 2000	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total (g-cal/cm^2-day)	589.8	564.6	539.4	171.5	152.2	322.3	387.6	573.0	477.3	232.2	601.2

[a]value includes some estimated hourly values.

Table 18. SEPTEMBER 1976.

Hour of Day	AVERAGE HOURLY LANGLEYS ($g\text{-}cal/cm^2\text{-}min$) Day of 1976							
	267	268	269	270	271	272	273	274
500- 600	0.36	0.30	0.29	0.13	0.17	0.16	0.21	0.14
600- 700	0.54	0.37	0.34	0.18	0.19	0.42	0.26	0.16
700- 800	0.80	0.70	0.42	0.33	0.31	0.75	0.32	0.22
800- 900	1.02	0.71	0.48	0.45	0.26	0.94	0.54	0.19
900- 1000	0.67	0.83	0.46	0.77	0.23	1.18	0.64	0.19
1000- 1100	0.07	0.56	0.58	0.92	0.34	0.40	0.55	0.25
1100- 1200	0.56	0.57	0.82	0.76	0.54	0.79	0.63	0.31
1200- 1300	0.80	0.94	0.56	0.53	0.51	1.12	0.57	0.30
1300- 1400	1.03	0.95	0.87	0.27	0.37	0.89	0.37	0.19
1400- 1500	0.77	0.71	0.60	0.22	0.26	0.55	0.27	0.11
1500- 1600	0.48	0.46	0.41	0.18	0.17	0.34	0.20	0.11
1600- 1700	0.26	0.23	0.24	0.13	0.10	0.21	0.16	0.08
1700- 1800	0.08	0.07	0.07	0.04	0.04	0.05	0.05	0.04
1800- 1900	0.00	0.01	0.01	0.02	0.01	0.02	0.02	0.02
1900- 2000	0.00	0.01	0.01	0.02	0.01	0.02	0.02	0.01
Total ($g\text{-}cal/cm^2\text{-}day$)	454.1	450.1	375.7	306.7	215.3	477.0	305.5	150.3

[a] value includes some estimated hourly values.

Table 18. OCTOBER 1976.

AVERAGE HOURLY LANGLEYS (g-cal/cm^2-min)
Day of 1976

Hour of Day	275	276	277	278	279	280	281	282	283	284	285
500- 600	0.01	0.03	0.06	0.06	0.04	0.03	0.04	0.02	0.03	0.11	0.12
600- 700	0.04	0.05	0.12	0.12	0.18	0.11	0.21	0.10	0.08	0.34	0.35
700- 800	0.08	0.06	0.11	0.23	0.31	0.43	0.40	0.21	0.11	0.61	0.61
800- 900	0.12	0.08	0.15	0.32	0.34	0.55	0.53	0.32	0.23	0.83	0.83
900- 1000	0.11	0.12	0.27	0.53	0.33	0.50	0.45	0.26	0.52	1.02	1.00
1000- 1100	0.13	0.09	0.35	0.64	0.58	0.70	0.46	0.36	0.51	0.94	1.09
1100- 1200	0.15	0.07	0.39	0.76	0.65	0.94	0.39	0.33	0.47	0.95	1.08
1200- 1300	0.13	0.09	0.38	0.54	0.64	0.82	0.47	0.24	0.35	0.87	0.96
1300- 1400	0.08	0.08	0.18	0.43	0.54	0.43	0.48	0.29	0.40	0.60	0.77
1400- 1500	0.07	0.06	0.12	0.44	0.29	0.41	0.46	0.23	0.18	0.50	0.53
1500- 1600	0.05	0.04	0.09	0.12	0.23	0.20	0.20	0.11	0.16	0.30	0.25
1600- 1700	0.04	0.04	0.04	0.04	0.03	0.03	0.02	0.01	0.06	0.05	0.03
1700- 1800	0.03	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1800- 1900	0.03	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1900- 2000	0.03	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01
Total (g-cal/cm^2-day)	76.0	68.0	157.5	262.4	249.0	309.4	247.7	149.0	186.8	429.4	460.9

[a]value includes some estimated hourly values.

Table 18. OCTOBER 1976.

AVERAGE HOURLY LANGLEYS (g-cal/cm^2-min)

Day of 1976

Hour of Day	286	287	288	289	290	291	292	293	294	295	296
500- 600	0.12	0.13	0.10	0.11	0.10	0.07	0.17	0.17	0.04	0.08	0.08
600- 700	0.33	0.41	0.35	0.32	0.27	0.11	0.40	0.37	0.05	0.30	0.18
700- 800	0.61	0.57	0.63	0.58	0.54	0.13	0.60	0.63	0.07	0.55	0.51
800- 900	0.87	0.81	0.84	0.80	0.56	0.14	0.84	0.83	0.09	0.75	0.75
900- 1000	1.02	0.96	1.00	0.96	0.89	0.18	0.50	0.81	0.08	0.86	0.89
1000- 1100	1.09	1.02	1.06	1.01	0.77	0.21	0.44	0.86	0.06	0.96	0.96
1100- 1200	1.08	1.01	1.05	0.99	0.62	0.21	0.84	0.87	0.10	0.94	0.94
1200- 1300	0.99	0.89	0.91	0.87	0.73	0.14	0.91	0.65	0.07	0.77	0.82
1300- 1400	0.79	0.64	0.69	0.68	0.52	0.14	0.69	0.50	0.05	0.38	0.59
1400- 1500	0.53	0.41	0.43	0.43	0.24	0.11	0.43	0.27	0.07	0.33	0.35
1500- 1600	0.24	0.21	0.18	0.16	0.13	0.09	0.18	0.11	0.07	0.09	0.10
1600- 1700	0.04	0.03	0.02	0.02	0.03	0.03	0.03	0.02	0.03	0.01	0.01
1700- 1800	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.01	0.00	0.01
1800- 1900	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.01	0.00	0.01
1900- 2000	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.01	0.00	0.01
Total (g-cal/cm^2-day)	468.2	427.3	437.1	417.4	325.6	99.7	366.7	368.1	49.2	363.4	380.0

[a] value includes some estimated hourly values.

Table 18. OCTOBER 1976.

AVERAGE HOURLY LANGLEYS (g-cal/cm^2-min)
Day of 1976

Hour of Day	297	298	299	300	301	302	303	304	305
500- 600	0.02	0.02	0.02	0.01	0.02	0.02	0.02	0.02	0.01
600- 700	0.09	0.03	0.03	0.03	0.07	0.09	0.09	0.07	0.02
700- 800	0.32	0.08	0.08	0.15	0.27	0.37	0.32	0.21	0.07
800- 900	0.60	0.11	0.11	0.49	0.54	0.57	0.55	0.28	0.22
900- 1000	0.77	0.16	0.13	0.50	0.74	0.76	0.75	0.35	0.33
1000- 1100	0.91	0.15	0.13	0.51	0.87	0.76	0.88	0.55	0.55
1100- 1200	0.95	0.11	0.17	0.59	0.84	0.92	0.92	0.57	0.89
1200- 1300	0.90	0.12	0.22	0.73	0.77	0.87	0.87	0.47	0.81
1300- 1400	0.73	0.08	0.13	0.63	0.52	0.73	0.74	0.31	0.55
1400- 1500	0.55	0.08	0.08	0.48	0.29	0.52	0.53	0.15	0.31
1500- 1600	0.25	0.06	0.08	0.25	0.13	0.27	0.27	0.06	0.25
1600- 1700	0.06	0.03	0.03	0.05	0.03	0.05	0.04	0.03	0.04
1700- 1800	0.01	0.02	0.02	0.01	0.02	0.01	0.01	0.02	0.01
1800- 1900	0.01	0.02	0.02	0.01	0.02	0.01	0.01	0.02	0.01
1900- 2000	0.02	0.02	0.03	0.01	0.02	0.01	0.01	0.02	0.01
Total (g-cal/cm^2-day)	381.3	74.6	88.3	275.6	318.2	366.3	369.8	196.8	249.6

[a]value includes some estimated hourly values.

Table 18. NOVEMBER 1976.

AVERAGE HOURLY LANGLEYS (g-cal/cm^2-min)
Day of 1976

Hour of Day	306	307	308	309	310	311	312	313	314	315	316
500- 600	0.01	0.02	0.02	0.02	0.02	0.01	0.02	0.01	0.02	0.02	0.02
600- 700	0.06	0.07	0.06	0.04	0.03	0.05	0.08	0.04	0.04	0.02	0.03
700- 800	0.28	0.28	0.32	0.09	0.07	0.25	0.22	0.12	0.14	0.15	0.19
800- 900	0.54	0.53	0.37	0.25	0.21	0.51	0.43	0.20	0.14	0.41	0.26
900- 1000	0.75	0.73	0.40	0.41	0.31	0.72	0.68	0.49	0.50	0.59	0.26
1000- 1100	0.87	0.86	0.68	0.67	0.48	0.82	0.66	0.77	0.63	0.75	0.28
1100- 1200	0.91	0.89	0.37	0.87	0.66	0.88	0.58	0.40	0.79	0.80	0.29
1200- 1300	0.86	0.83	0.33	0.74	0.66	0.83	0.46	0.57	0.77	0.69	0.46
1300- 1400	0.43	0.69	0.20	0.51	0.42	0.68	0.56	0.76	0.67	0.63	0.42
1400- 1500	0.27	0.50	0.18	0.46	0.34	0.46	0.38	0.28	0.45	0.48	0.34
1500- 1600	0.25	0.25	0.10	0.21	0.18	0.22	0.10	0.19	0.21	0.24	0.21
1600- 1700	0.04	0.04	0.03	0.02	0.03	0.03	0.02	0.03	0.03	0.04	0.05
1700- 1800	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
1800- 1900	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.01
1900- 2000	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.01
Total (g-cal/cm^2-day)	326.6	354.4	197.4	268.7	215.4	336.7	259.9	242.3	274.4	298.9	179.7

[a] value includes some estimated hourly values.

Table 18. NOVEMBER 1976.

AVERAGE HOURLY LANGLEYS (g-cal/cm^2-min)
Day of 1976

Hour of Day	317	318	319	320	321	322	323	324	325	326	327
500- 600	0.02	0.01	0.01	0.00	0.01	0.01	0.01	0.01	0.00	0.01	0.01
600- 700	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01
700- 800	0.03	0.17	0.16	0.09	0.16	0.15	0.14	0.12	0.10	0.11	0.15
800- 900	0.04	0.41	0.41	0.11	0.39	0.35	0.33	0.35	0.22	0.29	0.34
900- 1000	0.05	0.63	0.63	0.11	0.59	0.45	0.57	0.55	0.51	0.59	0.58
1000- 1100	0.07	0.77	0.76	0.20	0.73	0.48	0.71	0.69	0.70	0.45	0.74
1100- 1200	0.10	0.83	0.82	0.21	0.79	0.53	0.77	0.75	0.75	0.49	0.66
1200- 1300	0.13	0.82	0.80	0.16	0.76	0.49	0.70	0.73	0.55	0.64	0.60
1300- 1400	0.52	0.44	0.69	0.18	0.65	0.30	0.64	0.61	0.34	0.46	0.60
1400- 1500	0.38	0.31	0.36	0.17	0.46	0.21	0.45	0.42	0.31	0.43	0.33
1500- 1600	0.15	0.20	0.19	0.09	0.23	0.15	0.23	0.21	0.14	0.20	0.16
1600- 1700	0.04	0.04	0.04	0.04	0.04	0.05	0.04	0.03	0.04	0.03	0.04
1700- 1800	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.01
1800- 1900	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.01
1900- 2000	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.01	0.01
Total (g-cal/cm^2-day)	99.1	284.2	298.0	86.3	294.4	194.5	278.8	271.9	221.8	227.1	260.1

[a]value includes some estimated hourly values.

Table 18. NOVEMBER 1976.

Hour of Day	AVERAGE HOURLY LANGLEYS (g-cal/cm^2-min) Day of 1976							
	328	329	330	331	332	333	334	335
500- 600	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.01
600- 700	0.02	0.03	0.02	0.02	0.01	0.01	0.01	0.02
700- 800	0.14	0.18	0.12	0.09	0.05	0.05	0.03	0.13
800- 900	0.36	0.40	0.39	0.22	0.11	0.09	0.05	0.34
900- 1000	0.57	0.56	0.36	0.45	0.14	0.16	0.05	0.56
1000- 1100	0.72	0.69	0.33	0.66	0.28	0.22	0.08	0.70
1100- 1200	0.77	0.55	0.40	0.72	0.64	0.15	0.10	0.77
1200- 1300	0.50	0.35	0.37	0.68	0.68	0.13	0.09	0.73
1300- 1400	0.40	0.23	0.33	0.35	0.59	0.08	0.12	0.65
1400- 1500	0.36	0.24	0.20	0.20	0.42	0.06	0.09	0.47
1500- 1600	0.20	0.12	0.11	0.13	0.21	0.03	0.07	0.24
1600- 1700	0.03	0.04	0.06	0.03	0.04	0.02	0.03	0.05
1700- 1800	0.00	0.01	0.00	0.00	0.00	0.00	0.01	0.00
1800- 1900	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.01
1900- 2000	0.01	0.01	0.01	0.01	0.00	0.00	0.01	0.01
Total (g-cal/cm^2-day)	251.8	210.7	167.5	216.5	190.0	62.8	49.9	287.8

[a]value includes some estimated hourly values.

Table 18. DECEMBER 1976.

AVERAGE HOURLY LANGLEYS (g-cal/cm^2-min)
Day of 1976

Hour of Day	336	337	338	339	340	341	342	343	344	345	346
500- 600	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.00
600- 700	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.00
700- 800	0.17	0.04	0.12	0.12	0.18	0.19	0.02	0.05	0.12	0.11	0.04
800- 900	0.46	0.08	0.37	0.36	0.49	0.44	0.03	0.07	0.32	0.32	0.07
900- 1000	0.58	0.12	0.51	0.55	0.70	0.60	0.04	0.08	0.52	0.47	0.11
1000- 1100	0.70	0.27	0.71	0.57	0.70	0.70	0.06	0.11	0.65	0.60	0.15
1100- 1200	0.75	0.58	0.75	0.72	0.73	0.70	0.07	0.11	0.71	0.66	0.14
1200- 1300	0.73	0.64	0.73	0.71	0.71	0.63	0.08	0.16	0.69	0.64	0.12
1300- 1400	0.63	0.39	0.62	0.56	0.60	0.45	0.06	0.24	0.57	0.31	0.17
1400- 1500	0.44	0.14	0.44	0.25	0.41	0.20	0.11	0.21	0.40	0.25	0.12
1500- 1600	0.22	0.18	0.22	0.15	0.19	0.08	0.11	0.14	0.18	0.12	0.05
1600- 1700	0.04	0.03	0.04	0.03	0.03	0.02	0.03	0.04	0.02	0.02	0.01
1700- 1800	0.01	0.00	0.01	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.01
1800- 1900	0.01	0.00	0.01	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.01
1900- 2000	0.01	0.00	0.01	0.00	0.00	0.01	0.01	0.01	0.01	0.00	0.01
Total (g-cal/cm^2-day)	290.4	155.6	278.8	248.9	290.7	248.3	43.1	81.5	257.4	214.2	65.3

[a]value includes some estimated hourly values.

Table 18. DECEMBER 1976.

AVERAGE HOURLY LANGLEYS (g-cal/cm^2-min)
Day of 1976

Hour of Day	347	348	349	350	351	352	353	354	355	356	357
500- 600	0.01	0.00	0.01	0.01	0.01	0.01	0.00	0.01	0.00	0.00	0.01
600- 700	0.01	0.00	0.01	0.01	0.01	0.01	0.00	0.01	0.00	0.00	0.01
700- 800	0.02	0.04	0.10	0.04	0.04	0.02	0.06	0.09	0.05	0.06	0.06
800- 900	0.07	0.26	0.31	0.10	0.07	0.06	0.25	0.33	0.13	0.28	0.24
900- 1000	0.10	0.48	0.48	0.13	0.10	0.25	0.45	0.42	0.15	0.47	0.46
1000- 1100	0.11	0.65	0.64	0.15	0.11	0.59	0.61	0.41	0.27	0.66	0.62
1100- 1200	0.14	0.74	0.72	0.14	0.15	0.68	0.70	0.47	0.19	0.55	0.71
1200- 1300	0.14	0.72	0.72	0.14	0.14	0.54	0.70	0.53	0.09	0.62	0.71
1300- 1400	0.10	0.63	0.63	0.16	0.09	0.56	0.60	0.56	0.06	0.56	0.62
1400- 1500	0.10	0.45	0.46	0.16	0.07	0.43	0.43	0.35	0.06	0.45	0.38
1500- 1600	0.05	0.23	0.24	0.08	0.06	0.19	0.22	0.11	0.04	0.20	0.24
1600- 1700	0.02	0.04	0.06	0.04	0.02	0.04	0.04	0.02	0.01	0.05	0.03
1700- 1800	0.01	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.01
1800- 1900	0.01	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.01
1900- 2000	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.01
Total (g-cal/cm^2-day)	58.1	259.0	267.7	73.8	57.8	206.8	245.1	201.0	67.1	240.0	254.9

[a]value includes some estimated hourly values.

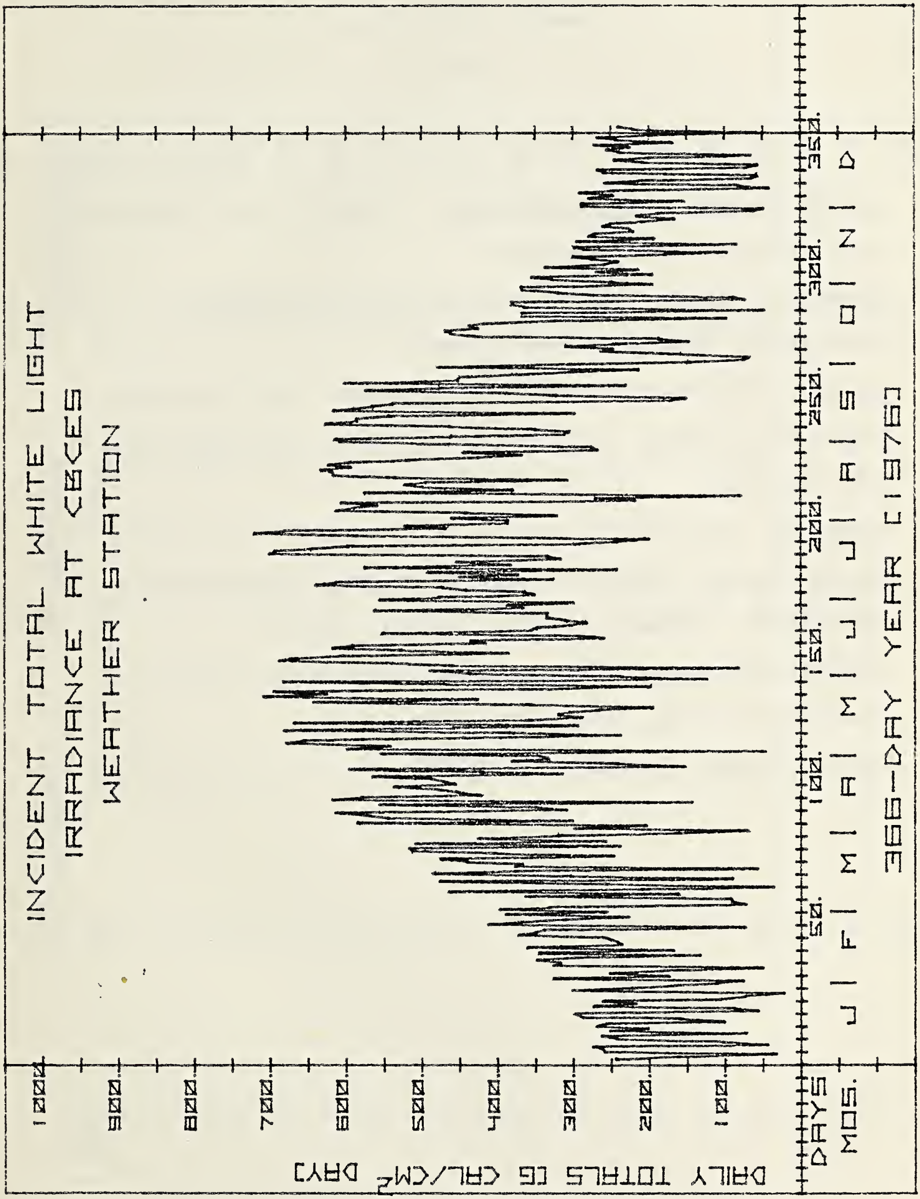
Table 18. DECEMBER 1976.

AVERAGE HOURLY LANGLEYS (g-cal/cm^2-min)
Day of 1976

Hour of Day	358	359	360	361	362	363	364	365	366
500- 600	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
600- 700	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
700- 800	0.05	0.09	0.10	0.04	0.08	0.04	0.02	0.08	0.03
800- 900	0.23	0.28	0.27	0.18	0.27	0.13	0.04	0.26	0.06
900- 1000	0.45	0.49	0.44	0.30	0.49	0.32	0.08	0.48	0.25
1000- 1100	0.61	0.66	0.47	0.59	0.66	0.62	0.13	0.64	0.54
1100- 1200	0.70	0.74	0.53	0.72	0.74	0.63	0.14	0.72	0.74
1200- 1300	0.69	0.74	0.39	0.73	0.74	0.68	0.09	0.47	0.74
1300- 1400	0.52	0.64	0.29	0.64	0.64	0.39	0.10	0.33	0.65
1400- 1500	0.29	0.47	0.15	0.46	0.46	0.20	0.13	0.28	0.48
1500- 1600	0.10	0.26	0.08	0.25	0.23	0.11	0.08	0.19	0.26
1600- 1700	0.03	0.05	0.03	0.04	0.06	0.03	0.03	0.06	0.06
1700- 1800	0.00	0.00	0.01	0.00	0.01	0.01	0.01	0.01	0.01
1800- 1900	0.00	0.00	0.01	0.00	0.01	0.01	0.01	0.01	0.01
1900- 2000	0.00	0.00	0.01	0.00	0.01	0.01	0.01	0.01	0.01
Total (g-cal/cm^2-day)	225.9	271.3	171.2	243.0	268.1	196.4	59.8	219.6	239.9

[a]value includes some estimated hourly values.

Figure 13. Sunlight.



Weather Station Data

(map 2)

<u>% Relative Humidity and Air Temperature</u> - Measured using a Hygrothermograph - Belfort Instrument Company.

<u>Barometric Pressure</u> - Measured using an aneroid type barometer. Microbargraph - Belfort Instrument Company.

<u>Rainfall</u> - Measured using a weighing rain gauge - Belfort Instrument Company at the weather station and manually read, total event gauges at other locations.

<u>Evaporation</u> - Measurements are taken of the amount of water evaporating from an open pan. Wind run adjacent to the pan and maximum/minimum temperatures of the water in the pan were also taken.

<u>Principal Investigator:</u> Daniel Higman, Chesapeake Bay Center for Environmental Studies, Smithsonian Institution.

<u>Research Funding:</u> Smithsonian Institution.

Table 19. Weather Station Data (Relative humidity, air temperature, and barometric pressure).

Day of 1976	Relative Humidity %		Air Temperature °C		Barometric Pressure mm of Mercury	
	Max.	Min.	Max.	Min.	Max.	Min.
1	94	52	3.9	-4.4	766	748
2	96	51	1.7	-7.2	769	763
3	96	47	6.1	0.6	763	753
4	53	34	0.6	-3.3	769	758
5	78	36	-2.2	-9.4	769	774
6	89	31	1.1	-13.3	774	769
7	96	59	1.1	-5.0	769	754
8	97	45	0.6	-8.3	763	751
9	82	24	-3.3	-12.2	770	763
10	88	23	0	-14.4	774	770
11	91	49	1.7	-3.9	771	758
12	95	43	17.8	-5.6	768	757
13	96	54	11.1	-6.7	767	750
14	88	27	10.6	-3.9	766	750
15	75	30	4.4	-7.2	768	764
16	90	44	5.0	-2.8	764	753
17	89	37	1.1	-8.9	762	753

Table 19. (Continued)

Day of 1976	Relative Humidity %		Air Temperature ^{o} C		Barometric Pressure mm of Mercury	
	Max.	Min.	Max.	Min.	Max.	Min.
18	85	36	-6.1	-	776	762
19	85	39	7.8	-	778	771
20	99	53	-2.2	-7.2	770	765
21	98	46	0	-5.0	764	752
22	52	32	0	-7.2	759	754
23	81	42	-4.4	-12.2	765	755
24	92	50	4.4	-8.3	761	754
25	98	61	1.7	-3.3	769	761
26	98	89	11.1	5.6	767	763
27	97	91	8.9	0.6	763	759
28	92	36	1.1	-4.4	763	758
29	71	36	10.6	0	758	753
30	94	50	2.8	-3.9	758	753
31	95	64	1.1	-2.8	761	757
32	97	81	5.0	-1.7	757	737
33	94	35	-	-	764	734
34	93	56	0.6	-	766	764

Table 19. (Continued)

Day of 1976	Relative Humidity %		Air Temperature ° C		Barometric Pressure mm of Mercury	
	Max.	Min.	Max.	Min.	Max.	Min.
35	97	43	8.3	-9.4	768	764
36	86	46	1.1	-1.7	771	761
37	93	53	-1.7	-5.6	762	758
38	73	33	-1.7	-8.3	762	757
39	74	29	6.1	-3.3	756	750
40	90	35	3.3	-7.2	766	755
41	95	29	11.1	-7.8	765	751
42	80	32	13.3	-1.1	764	750
43	98	28	8.9	-6.1	769	764
44	96	40	16.7	3.3	765	760
45	94	28	7.8	-6.1	776	761
46	94	37	13.3	-7.2	776	760
47	92	41	18.9	6.7	762	753
48	70	28	23.3	11.1	760	755
49	93	42	22.8	5.6	758	748
50	74	24	16.7	7.2	757	750
51	92	33	11.7	-1.7	769	757

Table 19. (Continued)

Day of 1976	Relative Humidity %		Air Temperature ° C		Barometric Pressure mm of Mercury	
	Max.	Min.	Max.	Min.	Max.	Min.
52	98	49	12.2	-2.8	769	757
53	97	41	15.0	0.6	767	748
54	87	26	2.8	-6.7	770	758
55	88	23	16.1	-6.7	770	766
56	82	33	15.6	1.1	768	765
57	79	38	16.7	4.4	765	760
58	92	25	18.9	2.2	763	760
59	61	23	20.6	6.7	763	758
60	93	24	23.3	1.1	764	758
61	91	41	20.0	6.7	765	760
62	97	90	6.7	4.4	765	763
63	96	84	6.1	3.3	766	764
64	96	83	7.8	5.0	768	763
65	96	34	26.1	4.4	763	757
66	92	30	15.0	-3.3	763	758
67	98	16	13.9	-6.1	762	758
68	92	41	7.8	-2.8	764	760

Table 19. (Continued)

Day of 1976	Relative Humidity %		Air Temperature o C		Barometric Pressure mm of Mercury	
	Max.	Min.	Max.	Min.	Max.	Min.
69	98	44	3.9	-1.7	763	753
70	94	68	1.7	-3.3	762	756
71	96	31	8.3	-1.7	769	759
72	93	53	10.0	-3.3	771	757
73	80	36	20.0	1.1	760	747
74	95	35	9.4	-2.8	765	760
75	98	26	14.4	-3.9	763	759
76	98	45	7.8	0	758	740
77	52	26	1.1	-5.0	764	750
78	90	30	5.0	-9.4	767	763
79	86	25	20.6	4.4	763	758
80	82	40	19.4	7.2	761	755
81	98	40	23.9	5.0	760	749
82	97	31	10.0	-2.8	770	760
83	99	28	11.1	-5.0	772	769
84	97	33	15.6	-2.2	770	764
85	93	44	15.6	5.0	764	759

Table 19. (Continued)

Day of 1976	Relative Humidity %		Air Temperature °C		Barometric Pressure mm of Mercury	
	Max.	Min.	Max.	Min.	Max.	Min.
86	98	33	18.3	2.8	765	762
87	97	57	17.2	8.9	763	755
88	91	28	15.6	2.8	765	758
89	99	40	13.9	-1.7	767	763
90	96	65	12.2	7.8	763	760
91	99	76	11.7	7.8	763	754
92	94	31	13.3	2.8	757	751
93	94	41	14.4	1.7	760	756
94	80	31	15.6	1.1	762	757
95	96	61	11.1	1.1	757	750
96	92	25	13.3	-1.1	761	757
97	98	26	17.8	-2.8	758	756
98	90	24	16.1	2.8	760	758
99	95	40	11.1	2.2	764	759
100	78	26	8.3	-1.7	764	762
101	88	25	16.1	-4.4	765	759
102	52	36	13.9	1.1	766	755

Table 19. (Continued)

Day of 1976	Relative Humidity %		Air Temperature ^{o} C		Barometric Pressure mm of Mercury	
	Max.	Min.	Max.	Min.	Max.	Min.
103	85	28	8.9	-3.9	770	766
104	93	20	16.7	-3.3	767	762
105	98	21	17.8	-2.2	764	762
106	94	23	20.0	1.1	766	763
107	96	30	30.0	5.6	764	762
108	94	31	30.6	10.0	766	764
109	96	31	28.9	11.1	766	764
110	96	49	25.6	11.1	764	759
111	97	42	26.7	11.7	759	756
112	95	37	26.7	12.8	758	756
113	94	40	25.6	11.1	758	756
114	97	20	24.4	7.8	761	758
115	90	40	21.1	6.7	763	755
116	93	57	21.7	11.7	755	746
117	97	42	13.3	4.4	760	748
118	60	34	9.4	0.6	764	760
119	73	32	15.0	1.7	764	762

Table 19. (Continued)

Day of 1976	Relative Humidity %		Air Temperature °C		Barometric Pressure mm of Mercury	
	Max.	Min.	Max.	Min.	Max.	Min.
120	92	30	17.8	2.8	764	762
121	97	31	19.4	2.2	764	760
122	96	72	1 .0	12.2	760	752
123	96	41	20.0	8.9	756	753
124	97	25	15.0	3.9	761	753
125	90	29	13.3	1.1	767	762
126	97	24	23.3	1.1	766	762
127	83	36	26.1	13.9	763	760
128	87	52	24.4	11.7	762	756
129	98	28	15.0	2.8	766	762
130	99	23	18.3	0.6	765	763
131	98	38	24.4	3.9	765	757
132	95	54	21.1	11.1	759	755
133	95	30	16.7	4.4	763	755
134	98	36	17.2	2.8	766	763
135	92	60	23.9	14.4	765	761
136	94	58	24.4	15.0	762	761

Table 19. (Continued)

Day of 1976	Relative Humidity %		Air Temperature °C		Barometric Pressure mm of Mercury	
	Max.	Min.	Max.	Min.	Max.	Min.
137	94	77	22.2	18.3	761	757
138	94	54	23.3	16.1	757	752
139	94	51	21.1	5.6	754	749
140	87	34	11.7	3.9	757	753
141	74	28	25.0	7.8	758	756
142	78	31	26.7	12.2	757	753
143	92	32	22.2	6.7	759	756
144	94	40	18.3	8.3	758	755
145	98	36	19.4	6.1	755	753
146	96	42	18.3	7.2	761	754
147	94	56	14.4	8.3	764	760
148	97	41	20.6	6.7	766	764
149	97	32	22.2	6.7	767	764
150	94	67	18.3	15.0	764	757
151	94	70	21.1	15.0	757	756
152	94	66	23.9	14.4	758	755
153	90	46	28.9	18.3	756	754

Table 19. (Continued)

Day of 1976	Relative Humidity %		Air Temperature °C		Barometric Pressure mm of Mercury	
	Max.	Min.	Max.	Min.	Max.	Min.
154	91	62	18.3	13.3	764	756
155	79	34	18.9	9.4	766	763
156	96	30	21.1	5.6	770	766
157	94	26	22.2	5.6	771	768
158	94	32	21.7	5.6	767	763
159	93	36	27.2	8.3	763	759
160	91	36	27.2	13.3	759	756
161	93	28	30.6	13.3	760	757
162	92	38	28.3	14.4	760	757
163	91	31	29.4	17.2	757	753
164	98	42	27.8	15.0	765	754
165	85	53	25.0	13.3	768	765
166	94	72	28.9	16.7	766	762
167	99	52	30.0	15.6	762	759
168	99	50	27.2	19.4	759	757
169	99	70	23.9	17.2	763	759
170	98	56	26.1	17.8	764	762

Table 19. (Continued)

Day of 1976	Relative Humidity %		Air Temperature ^{o} C		Barometric Pressure mm of Mercury	
	Max.	Min.	Max.	Min.	Max.	Min.
171	99	58	26.7	17.8	762	758
172	100	66	31.1	18.9	759	757
173	100	74	27.8	20.0	762	759
174	99	63	25.6	18.9	764	762
175	99	59	26.7	18.3	766	764
176	99	59	27.8	17.2	764	759
177	97	58	29.4	20.0	758	756
178	99	46	26.7	16.1	763	758
179	100	40	30.6	13.3	764	762
180	100	41	29.4	15.6	762	758
181	96	53	28.3	17.8	759	756
182	96	54	27.2	15.6	756	752
183	97	42	25.6	13.3	760	755
184	97	33	26.1	10.0	762	760
185	96	41	26.1	13.9	762	759
186	97	51	23.9	11.7	759	757
187	96	42	25.0	13.9	763	758

Table 19. (Continued)

Day of 1976	Relative Humidity % Max.	Relative Humidity % Min.	Air Temperature °C Max.	Air Temperature °C Min.	Barometric Pressure mm of Mercury Max.	Barometric Pressure mm of Mercury Min.
188	99	52	26.7	13.9	763	760
189	99	61	24.4	16.1	761	758
190	99	56	27.2	13.3	760	758
191	98	56	26.1	15.6	762	759
192	99	48	26.7	12.2	763	759
193	100	55	25.0	16.1	754	748
194	95	50	25.6	16.1	752	748
195	82	44	24.4	13.3	753	751
196	84	52	23.9	16.1	756	753
197	98	67	25.0	15.6	757	755
198	99	50	28.9	18.3	757	753
199	99	40	23.9	13.9	760	754
200	100	36	26.7	10.6	765	761
201	100	40	28.3	12.8	767	765
202	98	44	30.0	14.4	766	762
203	99	41	30.6	16.1	762	759
204	98	70	24.4	19.4	765	760

Table 19. (Continued)

Day of 1976	Relative Humidity %		Air Temperature ^{o}C		Barometric Pressure mm of Mercury	
	Max.	Min.	Max.	Min.	Max.	Min.
205	98	73	25.0	19.4	765	759
206	98	48	30.6	19.4	759	756
207	99	35	24.4	12.2	763	757
208	100	42	25.6	8.3	765	761
209	96	48	28.3	15.6	761	757
210	98	46	29.4	15.6	759	757
211	99	64	28.3	18.3	758	755
212	98	57	28.3	17.2	757	755
213	99	53	28.3	18.5	756	753
214	100	49	24.4	14.4	758	753
215	100	41	23.3	11.1	765	759
216	100	37	25.6	10.6	768	765
217	99	42	26.1	10.6	766	763
218	99	40	28.9	13.3	763	760
219	90	44	29.4	17.2	760	758
220	97	65	25.0	20.0	759	758
221	100	67	23.9	18.9	759	758

Table 19. (Continued)

Day of 1976	Relative Humidity %		Air Temperature ^{o} C		Barometric Pressure mm of Mercury	
	Max.	Min.	Max.	Min.	Max.	Min.
222	100	99	18.9	17.8	759	754
223	100	47	25.0	13.3	765	758
224	99	48	26.7	13.3	767	765
225	98	48	28.9	15.0	765	760
226	98	50	30.0	16.7	760	757
227	99	54	27.8	17.2	760	757
228	100	70	26.7	16.7	760	758
229	100	42	23.3	12.8	763	760
230	99	37	24.4	9.4	765	762
231	99	40	23.9	12.2	766	762
232	98	39	22.8	12.8	768	766
233	98	43	24.4	7.8	769	766
234	98	38	26.7	8.9	766	761
235	99	46	31.1	12.8	761	758
236	100	43	29.4	16.1	761	759
237	100	60	27.2	15.6	766	761
238	99	66	26.7	15.6	766	763

Table 19. (Continued)

Day of 1976	Relative Humidity %		Air Temperature ^{o}C		Barometric Pressure mm of Mercury	
	Max.	Min.	Max.	Min.	Max.	Min.
239	99	55	30.0	18.3	764	761
240	98	63	26.7	18.9	763	762
241	99	69	25.6	17.8	763	760
242	100	44	27.8	18.3	762	760
243	100	38	21.1	8.9	767	763
244	100	44	21.7	5.6	767	767
245	99	40	26.1	10.0	764	761
246	99	69	20.6	15.0	765	761
247	98	44	21.7	12.8	767	765
248	98	49	25.0	11.1	764	758
249	99	47	26.1	12.8	760	757
250	99	28	22.2	7.2	765	760
251	100	33	25.6	5.0	767	764
252	99	37	30.0	10.6	765	762
253	98	42	28.3	11.7	764	758
254	98	42	18.9	8.9	759	754
255	99	36	22.2	3.9	761	758

Table 19. (Continued)

Day of 1976	Relative Humidity %		Air Temperature °C		Barometric Pressure mm of Mercury	
	Max.	Min.	Max.	Min.	Max.	Min.
256	99	41	27.8	8.3	767	761
257	99	54	27.8	10.0	769	767
258	99	40	28.9	10.6	768	765
259	99	93	19.4	14.4	765	762
260	98	98	19.4	17.2	762	759
261	98	59	25.0	13.9	760	759
262	99	58	23.3	11.1	759	758
263	100	47	24.4	11.7	759	757
264	100	48	25.0	10.6	757	751
265	99	80	16.7	8.3	753	750
266	98	33	16.7	4.4	763	753
267	98	34	22.8	2.2	765	762
268	98	51	18.3	8.3	765	763
269	98	66	19.4	9.4	763	761
270	99	67	21.1	11.7	762	757
271	100	88	22.2	16.7	757	753
272	100	48	-	7.8	761	754

Table 19. (Continued)

Day of 1976	Relative Humidity %		Air Temperature °C		Barometric Pressure mm of Mercury	
	Max.	Min.	Max.	Min.	Max.	Min.
273	99	58	16.1	7.2	761	758
274	99	98	13.3	11.1	758	753
275	98	98	13.3	12.2	758	753
276	99	98	12.8	11.1	757	756
277	100	91	14.4	11.7	761	756
278	99	56	18.3	12.8	765	762
279	92	55	17.8	10.0	765	763
280	99	58	19.4	8.3	763	760
281	99	72	21.1	13.3	763	761
282	98	87	20.0	16.1	762	756
283	98	60	20.0	7.2	755	742
284	99	39	13.9	3.9	763	754
285	100	36	12.8	1.1	769	763
286	99	37	15.0	-1.1	768	764
287	98	39	20.6	0.6	764	751
288	98	28	14.4	0.6	758	751
289	98	29	21.1	0	758	754

Table 19. (Continued)

Day of 1976	Relative Humidity %		Air Temperature ^{o}C		Barometric Pressure mm of Mercury	
	Max.	Min.	Max.	Min.	Max.	Min.
290	95	32	14.4	7.2	764	755
291	100	72	8.3	1.1	764	762
292	100	41	8.9	-2.8	772	764
293	99	43	10.0	-3.3	772	767
294	98	84	13.3	7.8	767	747
295	97	33	11.1	-0.6	760	749
296	98	31	8.9	-3.9	767	760
297	98	29	11.1	-5.0	771	767
298	100	85	8.3	4.4	768	760
299	100	99	12.2	7.8	761	751
300	100	49	11.1	-1.1	764	756
301	95	33	4.4	-4.4	770	765
302	98	36	5.6	-6.7	772	769
303	98	19	13.9	-6.1	769	765
304	99	60	9.4	-3.9	766	755
305	99	50	13.9	5.6	760	753
306	99	32	7.8	-3.9	768	758

Table 19. (Continued)

Day of 1976	Relative Humidity %		Air Temperature ^{o} C		Barometric Pressure mm of Mercury	
	Max.	Min.	Max.	Min.	Max.	Min.
307	99	30	10.0	-6.1	770	765
308	98	43	10.0	-1.1	765	759
309	98	43	10.6	0	760	758
310	98	41	5.6	0	763	758
311	98	29	10.0	-4.4	765	761
312	88	34	13.3	-1.7	761	756
313	73	38	2.2	-4.4	765	758
314	74	35	5.0	-6.7	765	755
315	98	34	11.7	-3.9	759	752
316	98	38	6.7	-6.1	765	759
317	98	65	1.1	-5.0	767	765
318	97	38	4.4	-6.1	769	767
319	99	31	7.8	-7.8	767	763
320	99	54	3.3	-5.0	763	760
321	99	31	7.8	-6.7	768	762
322	99	40	6.1	-8.3	768	755
323	96	32	11.1	0.6	757	752

Table 19. (Continued)

Day of 1976	Relative Humidity %		Air Temperature °C		Barometric Pressure mm of Mercury	
	Max.	Min.	Max.	Min.	Max.	Min.
324	98	28	18.9	-3.9	755	748
325	99	34	8.3	-3.9	756	753
326	100	33	8.3	-6.7	754	750
327	100	36	2.2	-3.9	762	752
328	99	36	2.2	-8.3	766	762
329	99	38	3.3	-10.6	766	762
330	98	56	4.4	-6.7	765	761
331	98	43	14.4	-2.8	762	759
332	99	54	18.3	6.1	759	756
333	100	95	11.1	7.2	758	751
334	100	50	8.3	-6.7	767	750
335	90	36	-3.9	-12.2	770	768
336	97	35	-1.1	-13.3	773	767
337	74	36	7.8	-7.2	768	758
338	91	32	-5.6	-14.4	774	768
339	98	37	3.9	-12.2	771	767
340	99	49	1.7	-10.6	774	770

Table 19. (Continued)

Day of 1976	Relative Humidity %		Air Temperature °C		Barometric Pressure mm of Mercury	
	Max.	Min.	Max.	Min.	Max.	Min.
341	100	60	4.4	-5.0	774	760
342	100	90	8.3	0.6	760	750
343	92	41	0.6	-8.9	767	755
344	93	34	1.7	-12.2	776	767
345	84	35	6.7	-3.9	776	767
346	99	75	6.7	1.7	769	765
347	100	81	3.9	1.7	764	754
348	81	29	0	-10.0	774	754
349	96	36	1.1	-12.2	775	766
350	89	50	2.8	-0.6	765	759
351	98	56	3.3	-1.7	758	751
352	98	38	6.1	-1.7	758	750
353	99	37	5.6	-6.1	767	758
354	100	46	8.9	-7.8	766	757
355	100	60	6.7	0.6	756	744
356	99	36	0	-8.9	763	746
357	68	32	-1.7	-11.7	767	760

Table 19. (Continued)

Day of 1976	Relative Humidity % Max.	Relative Humidity % Min.	Air Temperature ° C Max.	Air Temperature ° C Min.	Barometric Pressure mm of Mercury Max.	Barometric Pressure mm of Mercury Min.
358	74	32	4.4	-5.6	759	754
359	86	37	-3.3	-11.7	768	759
360	99	37	2.2	-12.2	765	754
361	99	40	2.2	-5.6	754	746
362	99	34	-1.7	-5.6	754	746
363	99	42	5.6	-4.4	748	744
364	98	52	-2.2	-10.0	755	746
365	77	42	-3.9	-15.6	761	751
366	85	35	-5.0	-11.7	757	751

Figure 14. Relative Humidity.

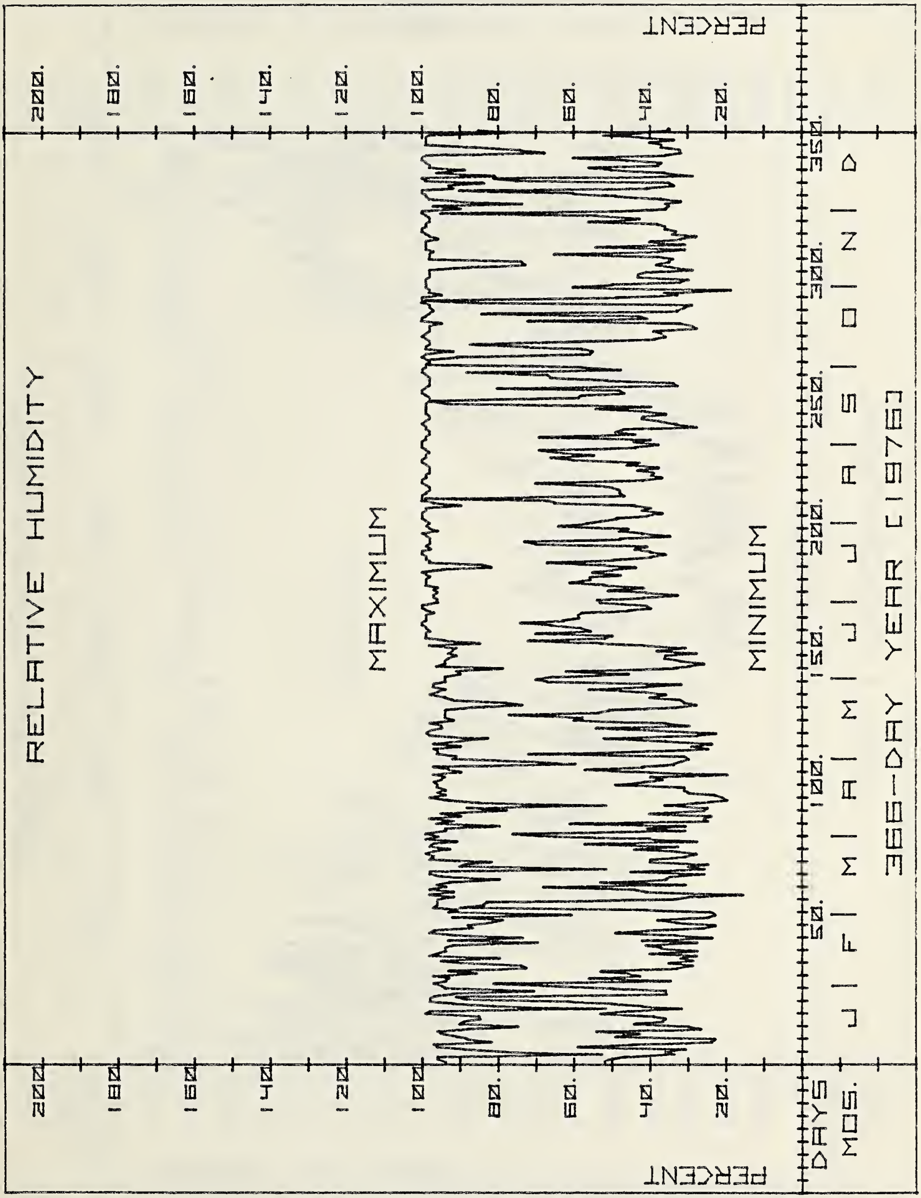


Figure 15. Air temperature.

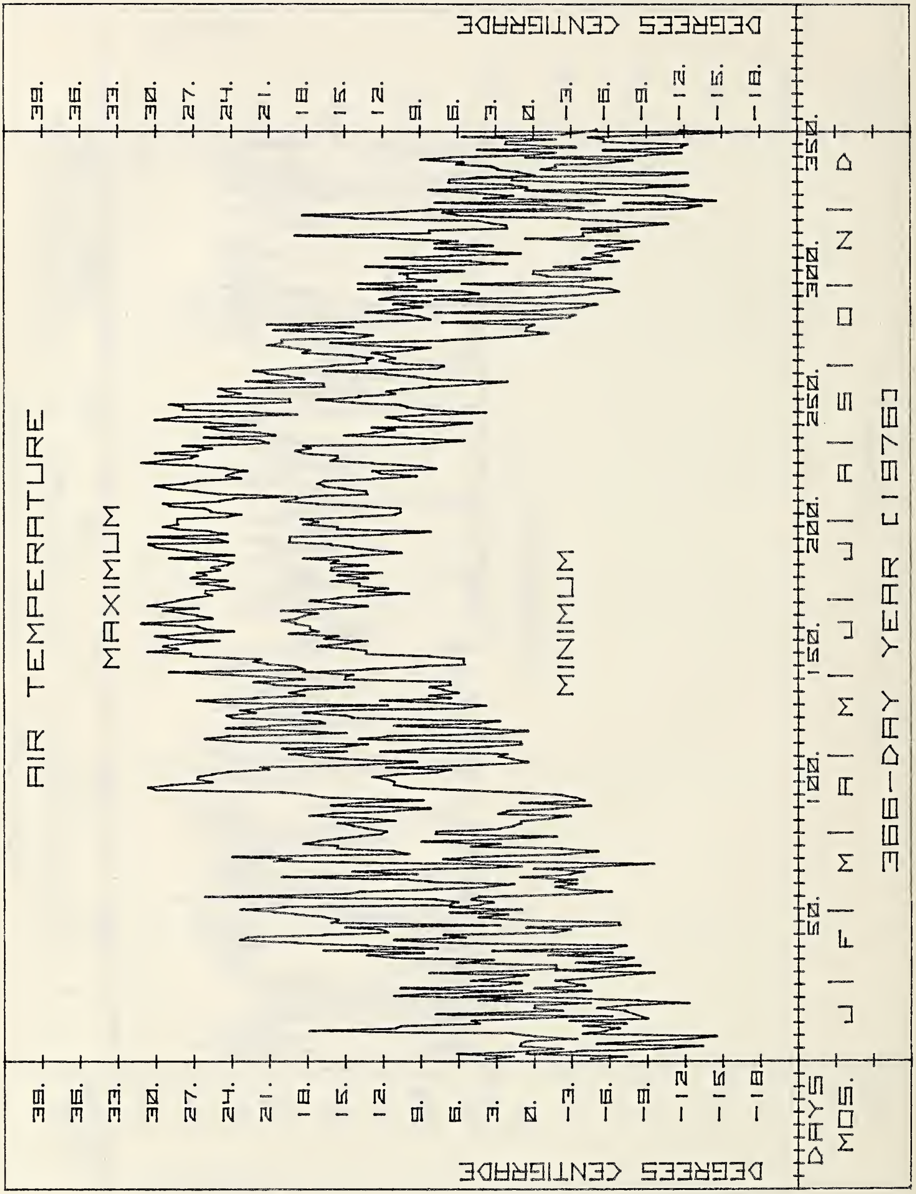


Figure 16. Barometric pressure.

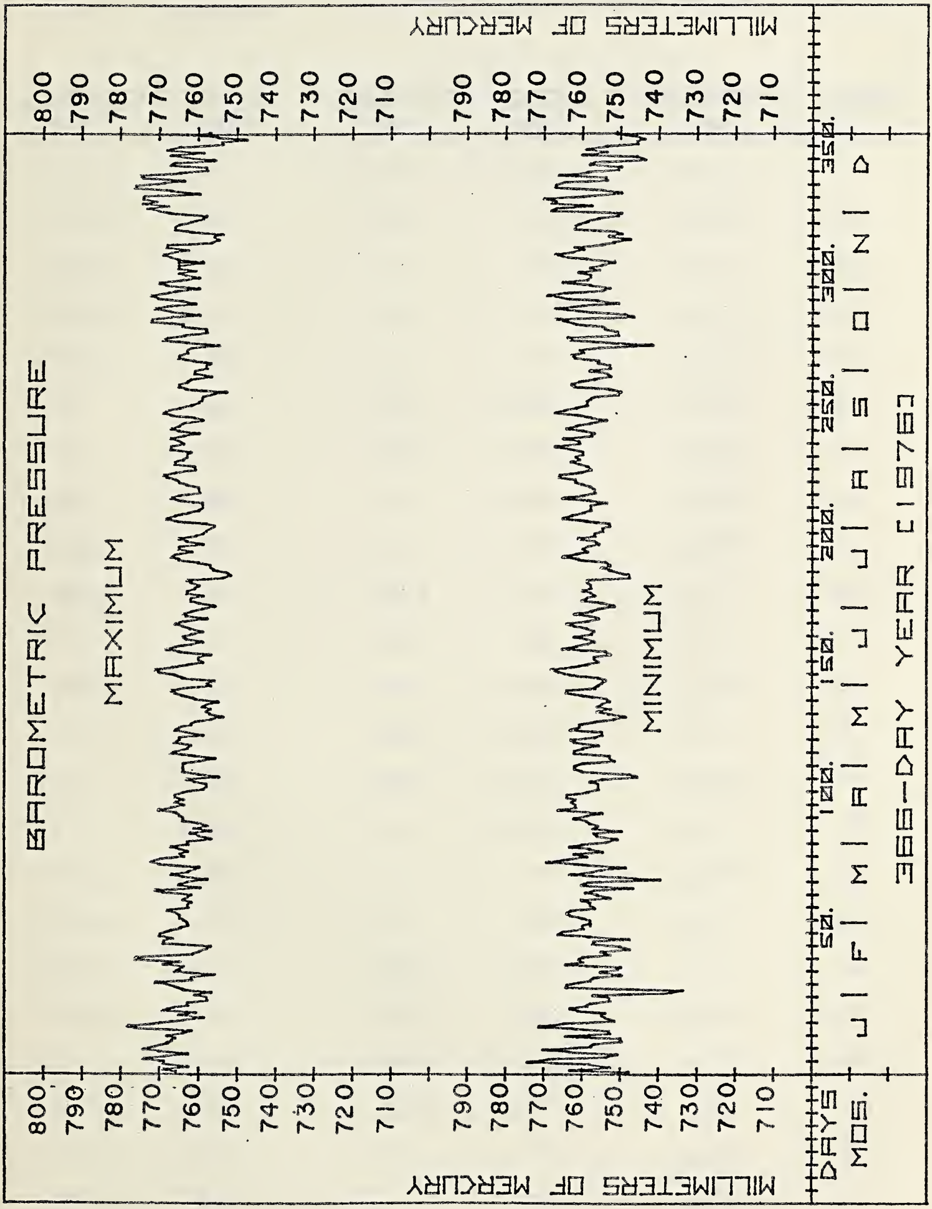


Table 20. Weather Station Data (Evaporation).

Day of 1976	Evaporation Cm	Day of 1976	Evaporation Cm	Day of 1976	Evaporation Cm
127	0.49	150	-	173	1.68
128	0.52	151	-	174	0.47
129	-	152	-	175	0.55
130	-	153	-	176	0.66
131	1.58	154	-	177	0.64
132	0.67	155	0.42	178	-
133	0.58	156	0.56	179	-
134	0.32	157	-	180	1.99
135	0.26	158	-	181	0.57
136	-	159	1.80	182	0.50
137	-	160	0.38	183	-
138	0.84	161	0.55	184	0.99
139	-	162	0.55	185	-
140	0.89	163	0.68	186	-
141	-	164	-	187	-
142	0.51	165	-	188	2.01
143	-	166	-	189	0.51
144	-	167	0.41	190	0.43
145	2.26	168	0.58	191	0.46
146	0.51	169	0.68	192	-
147	0.25	170	0.39	193	-
148	0.30	171	-	194	1.60
149	0.64	172	-	195	0.77

Table 20. (Continued)

Day of 1976	Evaporation Cm	Day of 1976	Evaporation Cm	Day of 1976	Evaporation Cm
196	-	219	0.61	242	-
197	1.04	220	-	243	1.73
198	1.47	221	-	244	-
199	-	222	-	245	0.83
200	-	223	-	246	0.43
201	-	224	0.48	247	0.25
202	2.72	225	0.53	248	-
203	0.27	226	0.48	249	-
204	0.65	227	-	250	-
205	2.10	228	-	251	1.93
206	-	229	1.70	252	-
207	-	230	0.60	253	0.92
208	1.77	231	0.63	254	0.38
209	0.44	232	0.59	255	-
210	0.54	233	0.47	256	-
211	0.46	234	-	257	1.34
212	-	235	-	258	0.46
213	-	236	1.60	259	-
214	-	237	0.48	260	2.64
215	1.47	238	0.41	261	0.22
216	0.52	239	0.41	262	-
217	0.53	240	-	263	-
218	0.55	241	-	264	1.22

Table 20. (Continued)

Day of 1976	Evaporation Cm	Day of 1976	Evaporation Cm
265	0.23	288	0.50
266	0.36	289	0.34
267	0.38	290	-
268	0.38	291	-
269	-	292	0.66
270	-		
271	0.36		
272	1.17		
273	0.19		
274	-		
275	-		
276	-		
277	-		
278	-		
279	0.21		
280	0.19		
281	0.17		
282	0.15		
283	-		
284	-		
285	-		
286	1.30		
287	0.22		

Figure 17. Evaporation.

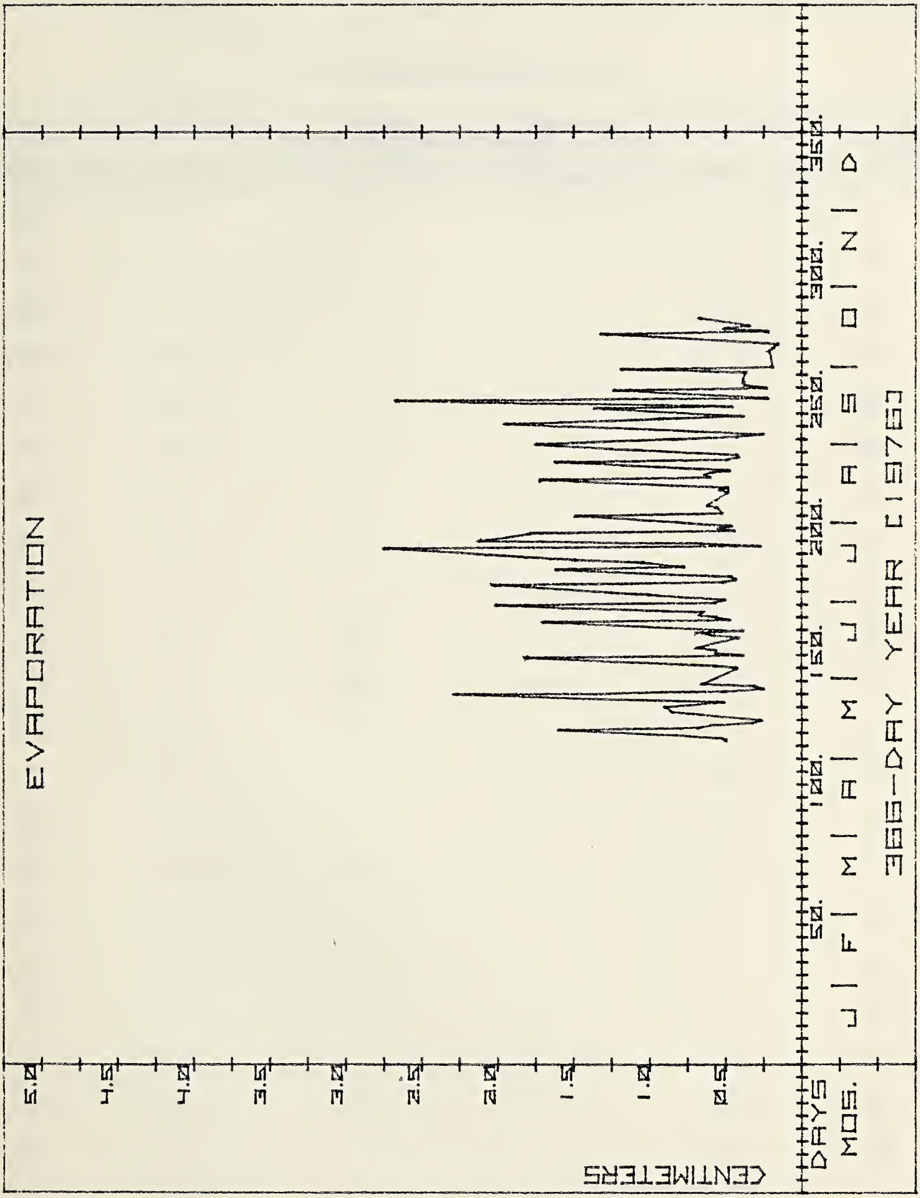


Table 21. Weather Station Data (Rainfall (cm)).

Stations (see Figure 2)

Day of 1976	Central	Northeast	Southeast	Southwest	North Central
	Rhode River grid locations				
	6075, 4126	8624, 5912	10003,2423	2016, 1088	4960, 6327
1	0.89	-	-	-	5.26
2	-	-	-	-	-
3	1.19	-	-	-	1.09
4	-	-	-	-	Trace
5	-	-	-	-	-
6	-	-	-	-	-
7	1.91	-	-	-	1.04
8	0.41	-	-	-	1.19
9	-	-	-	-	-
10	-	-	-	-	-
11	0.13	-	-	-	-
12	-	-	-	-	-
13	0.05	-	-	-	-
14	0.08	-	-	-	0.36
15	-	-	-	-	-
16	-	-	-	-	-
17	-	-	-	-	-
18	-	-	-	-	-
19	-	-	-	-	-
20	Trace	-	-	-	0.15
21	0.13	-	-	-	-
22	-	-	-	-	-

Table 21. (Continued)

	Stations (see Figure 2)				
	Central	Northeast	Southeast	Southwest	North Central
	Rhode River grid locations				
Day of 1976	6075, 4126	8624, 5912	10003, 2423	2016, 1088	4960, 6327
23	-	-	-	-	-
24	-	-	-	-	-
25	-	-	-	-	-
26	2.34	-	-	-	0.91
27	3.68	-	-	-	4.60
28	0.05	-	-	-	0.51
29	-	-	-	-	-
30	Trace	-	-	-	-
31	-	-	-	-	-
32	1.50	0.33	-	-	0.72
33	0.74	1.65	2.06	-	
34	Trace	-	-	-	-
35	-	-	-	-	-
36	-	-	-	-	-
37	Trace	0.05	-	-	-
38	-	-	-	-	-
39	-	-	-	-	-
40	-	-	-	-	-
41	-	-	-	-	-
42	Trace	0.08	-	-	-
43	-	-	-	-	-
44	0.25	0.13	0.38	-	-

Table 21. (Continued)

Day of 1976	Central 6075, 4126	Northeast 8624, 5912	Southeast 10003, 2423	Southwest 2016, 1088	North Central 4960, 6327
	Stations (see Figure 2)				
	Rhode River grid locations				
45	-	0.25	-	-	0.18
46	-	-	-	-	0.43
47	-	-	-	-	Trace
48	Trace	0.05	-	-	Trace
49	0.76	-	-	-	Trace
50	-	0.71	0.81	-	0.79
51	-	-	-	-	Trace
52	-	-	-	-	-
53	1.04	0.99	-	-	1.12
54	-	-	-	-	-
55	-	-	-	-	-
56	-	-	-	-	-
57	-	-	-	-	-
58	-	-	-	-	-
59	-	-	-	-	-
60	-	-	-	-	-
61	-	-	-	-	-
62	0.05	-	-	-	0.03
63	0.05	0.10	1.02	-	0.03
64	0.03	0.18	-	-	Trace
65	0.23	-	-	-	0.10
66	Trace	-	-	-	-

Table 21. (Continued)

	Stations (see Figure 2)				
	Central	Northeast	Southeast	Southwest	North Central
Day of 1976	Rhode River grid locations 6075, 4126	8624, 6912	10003, 2423	2016, 1088	4960, 6327
67	-	-	-	-	-
68	0.05	-	-	-	-
69	1.73	2.16	-	-	3.20
70	1.65	0.79	-	-	
71	-	-	3.30	-	-
72	0.10	0.13	-	-	-
73	0.30	0.25	-	-	0.28
74	-	-	-	-	-
75	0.08	-	-	-	-
76	1.07	0.86	-	-	1.07
77	-	0.28	1.73	-	-
78	-	-	-	-	-
79	-	-	-	-	-
80	-	-	-	-	-
81	0.03	-	-	0.05	0.15
82	-	-	-	-	-
83	Trace	-	-	-	-
84	-	-	-	0.02	-
85	0.05	-	-	-	0.05
86	-	-	-	-	-
87	1.14	1.07	-	0.05	Trace
88	-	-	1.14	0.89	0.91

Table 21. (Continued)

Day of 1976	Central 6075, 4126	Northeast 8624, 5912	Southeast 10003, 2423	Southwest 2016, 1088	North Central 4960, 6327
	Stations (see Figure 2) — Rhode River grid locations				
89	-	-	-	-	-
90	0.13	0.08	-	0.08	0.15
91	2.01	1.30	-	-	0.71
92	1.19	1.93	3.07	1.52	2.51
93	Trace	-	-	-	0.03
94	-	-	-	0.05	-
95	0.46	0.51	-	-	0.48
96	-	-	0.56	-	-
97	-	-	-	-	-
98	-	-	-	-	-
99	0.05	-	-	-	-
100	-	-	-	-	-
101	-	-	-	-	-
102	-	-	-	-	-
103	-	-	-	-	-
104	-	-	-	-	-
105	-	-	-	-	-
106	-	-	-	-	-
107	-	-	-	-	-
108	-	-	-	-	-
109	-	-	-	-	-
110	-	-	-	-	-

Table 21. (Continued)

	Stations (see Figure 2)				
	Central	Northeast	Southeast	Southwest	North Central
Day of	Rhode River grid locations				
1976	6075, 4126	8624, 5912	10003, 2423	2016, 1088	4960, 6327
111	-	-	-	-	-
112	-	-	-	-	-
113	0.61	-	0.36	-	0.18
114	Trace	0.41	-	-	-
115	-	-	-	-	-
116	0.18	-	-	-	Trace
117	-	-	0.13	0.20	0.18
118	-	-	-	-	-
119	-	-	-	-	-
120	-	-	-	-	-
121	-	-	-	-	-
122	4.17	3.51	3.02	0.05	2.64
123	-	-	-	3.56	Trace
124	-	-	-	-	-
125	-	-	-	-	-
126	-	-	-	-	-
127	-	-	-	-	-
128	-	-	-	-	-
129	-	-	-	-	-
130	Trace	-	-	-	-
131	-	-	-	-	-
132	-	-	-	0.64	-

Table 21. (Continued)

	Stations (see Figure 2)				
	Central	Northeast	Southeast	Southwest	North Central
Day of 1976	Rhode River grid locations 6075, 4126	8624, 5912	10003, 2423	2016, 1088	4960, 6327
133	0.53	-	0.56	-	0.56
134	-	-	-	-	-
135	Trace	-	-	-	Trace
136	-	-	-	-	-
137	0.56	0.79	0.46	0.02	0.41
138	Trace	0.89	-	0.30	0.18
139	1.73	1.17	-	0.08	0.79
140	-	-	1.83	0.81	0.38
141	-	-	-	-	-
142	-	-	-	-	-
143	-	-	-	-	-
144	Trace	-	-	-	-
145	-	-	-	-	-
146	0.08	-	-	-	-
147	0.46	0.41	0.41	0.13	0.51
148	0.05	-	-	-	0.03
149	-	-	-	0.15	-
150	3.45	2.92	-	0.15	2.01
151	0.18	-	2.20	-	1.93
152	-	-	-	0.94	Trace
153	-	-	-	-	-
154	0.03	-	-	-	Trace

Table 21. (Continued)

	Stations (see Figure 2)				
	Central	Northeast	Southeast	Southwest	North Central
Day of	Rhode River grid locations				
1976	6075, 4126	8624, 5912	10003, 2423	2016, 1088	4960, 6327
155	Trace	-	-	-	-
156	-	-	-	-	-
157	-	-	-	-	-
158	-	-	-	-	-
159	-	-	-	-	-
160	-	-	-	-	-
161	-	-	-	-	-
162	-	-	-	-	-
163	-	-	-	-	-
164	-	-	-	-	-
165	-	-	-	-	-
166	-	-	-	-	-
167	-	-	-	-	-
168	0.36	-	-	-	-
169	3.96	4.27	4.37	-	2.59
170	0.08	-	-	1.78	Trace
171	-	-	-	-	-
172	0.13	0.30	-	-	-
173	0.48	0.25	-	-	0.23
174	0.05	-	-	-	-
175	-	-	0.30	-	-
176	-	-	-	-	-

Table 21. (Continued)

	Stations (see Figure 2)				
	Central	Northeast	Southeast	Southwest	North Central
Day of 1976	Rhode River grid locations 6075, 4126	8624, 5912	10003, 2423	2016, 1088	4960, 6327
177	-	-	-	-	-
178	-	-	-	-	-
179	-	-	-	-	-
180	-	-	-	-	-
181	-	-	-	-	-
182	1.40	1.37	-	-	-
183	0.05	-	-	-	1.50
184	-	-	-	-	-
185	0.18	-	-	-	0.18
186	-	-	-	-	Trace
187	-	-	-	-	-
188	-	-	0.41	-	-
189	0.46	0.64	0.18	-	0.20
190	0.13	0.30	-	0.53	0.79
191	0.05	-	-	-	0.20
192	1.14	-	-	-	-
193	2.08	-	2.54	0.76	3.18
194	-	-	-	-	0.23
195	-	-	-	-	-
196	-	-	-	-	-
197	1.17	3.84	-	1.02	1.04
198	3.45	2.39	3.91	-	0.13

Table 21. (Continued)

Stations (see Figure 2)

Day of 1976	Central 6075, 4126	Northeast 8624, 5912	Southeast 10003, 2423	Southwest 2016, 1088	North Central 4960, 6327
	Rhode River grid locations				
199	-	0.91	-	-	3.23
200	-	-	-	-	-
201	-	-	-	-	-
202	-	-	-	-	-
203	-	-	-	-	-
204	Trace	-	-	-	0.03
205	-	-	-	-	Trace
206	-	-	-	-	-
207	-	-	-	-	-
208	Trace	0.53	-	-	-
209	-	-	-	-	-
210	-	-	-	-	-
211	2.13	-	-	-	0.53
212	-	-	-	-	1.78
213	0.03	-	1.68	-	-
214	0.23	-	0.53	-	0.48
215	-	-	-	-	-
216	-	-	-	-	-
217	Trace	-	-	-	-
218	-	-	-	-	-
219	-	-	-	-	-
220	-	-	-	-	-

Table 21. (Continued)

	Stations (see Figure 2)				
	Central	Northeast	Southeast	Southwest	North Central
Day of 1976	Rhode River grid locations 6075, 4126	8624, 5912	10003, 2423	2016, 1088	4960, 6327
221	7.62	2.13	0.18	-	0.86
222	2.16	3.66	5.13	-	0.43
223	-	-	1.09	-	0.25
224	-	-	-	-	-
225	Trace	-	-	-	-
226	-	-	-	-	-
227	2.69	1.98	-	-	-
228	2.57	1.68	1.68	-	2.74
229	-	-	3.00	-	0.84
230	-	-	-	-	-
231	-	-	-	-	-
232	-	-	-	-	-
233	-	-	-	-	-
234	0.03	-	-	-	-
235	-	-	-	-	-
236	-	-	-	-	-
237	-	-	-	-	-
238	-	-	-	-	-
239	-	-	-	-	-
240	1.45	1.47	2.51	-	2.29
241	-	-	-	-	-
242	-	-	-	-	-

Table 21. (Continued)

	Stations (see Figure 2)				
	Central	Northeast	Southeast	Southwest	North Central
	Rhode River grid locations				
Day of 1976	6075, 4126	8624, 5912	10003, 2423	2016, 1088	4960, 6327
243	-	-	-	-	-
244	-	-	-	-	-
245	-	-	-	-	-
246	0.18	-	-	-	0.18
247	-	-	-	0.30	0.05
248	-	-	-	-	-
249	-	-	-	-	-
250	-	-	-	-	-
251	-	-	-	-	-
252	-	-	-	-	-
253	Trace	-	-	-	-
254	0.76	-	0.76	0.81	0.94
255	-	-	-	-	-
256	-	-	-	-	-
257	Trace	-	-	-	-
258	-	-	-	-	-
259	1.37	-	-	6.10	Trace
260	3.20	4.83	3.05	2.79	5.41
261	-	-	-	-	Trace
262	-	-	-	-	-
263	-	-	-	-	-
264	-	-	-	-	-

Table 21. (Continued)

	Stations (see Figure 2)				
	Central	Northeast	Southeast	Southwest	North Central
Day of	Rhode River grid locations				
1976	6075, 4126	8624, 5912	10003, 2423	2016, 1088	4960, 6327
265	0.05	-	-	-	-
266	-	-	-	-	-
267	0.03	-	-	-	-
268	-	-	-	-	-
269	-	-	-	-	-
270	0.76	-	-	0.89	0.66
271	1.04	-	-	0.13	0.20
272	-	-	1.68	0.51	-
273	-	-	-	0.13	0.56
274	2.64	2.21	2.68	2.34	2.34
275	0.28	1.98	-	1.07	0.56
276	2.54	2.67	2.68	1.45	2.36
277	0.18	0.25	-	-	0.33
278	-	-	-	-	0.05
279	-	-	-	-	-
280	-	-	-	-	-
281	-	-	-	-	-
282	-	2.01	4.47	-	-
283		2.77	-	4.39	5.70
284	4.95	-	-	-	0.03
285		-	-	-	-
286	-	-	-	-	-

Table 21. (Continued)

Day of 1976	Central 6075, 4126	Northeast 8624, 5912	Southeast 10003, 2423	Southwest 2016, 1088	North Central 4960, 6327
	Stations (see Figure 2) / Rhode River grid locations				
287	Trace	-	-	-	-
288	-	-	-	-	-
289	-	-	-	-	-
290	-	-	-	-	-
291	0.94	2.64	0.81	0.68	0.86
292	-	-	-	0.58	0.03
293	-	-	-	-	-
294	4.17	2.26	-	-	3.12
295	-	-	3.63	4.47	1.37
296	-	-	-	-	Trace
297	-	-	-	-	-
298	0.69	0.81	-	0.20	0.28
299	3.00	3.25	3.22	-	0.58
300	0.43	-	-	0.30	3.10
301	-	-	-	3.61	-
302	-	-	-	-	-
303	-	-	-	-	-
304	1.07	2.84	-	-	-
305	1.70	-	-	-	2.46
306	-	-	-	2.46	-
307	-	-	2.69	-	-
308	-	-	-	-	-

Table 21. (Continued)

	Stations (see Figure 2)				
	Central	Northeast	Southeast	Southwest	North Central
	Rhode River grid locations				
Day of 1976	6075, 4126	8624, 5912	10003, 2423	2016, 1088	4960, 6327
309	-	-	-	-	-
310	-	-	-	-	-
311	-	-	-	-	-
312	-	-	-	-	-
313	-	-	-	-	-
314	-	-	-	-	-
315	-	-	-	-	-
316	-	-	-	-	-
317	0.38	-	-	-	0.41
318	-	-	-	-	-
319	-	-	-	-	-
320	0.03	-	-	-	Trace
321	-	-	-	-	-
322	-	-	-	-	-
323	-	-	-	-	-
324	-	-	-	-	-
325	-	-	-	-	-
326	0.15	-	-	-	-
327	-	-	-	0.13	-
328	-	-	0.61	-	-
329	-	-	-	-	-
330	-	-	-	-	-

Table 21. (Continued)

	Stations (see Figure 2)				
	Central	Northeast	Southeast	Southwest	North Central
Day of	Rhode River grid locations				
1976	6075, 4126	8624, 5912	10003, 2423	2016, 1088	4960, 6327
331	0.05	-	-	-	-
332	0.13	-	-	-	0.30
333	0.33	-	0.33	-	0.05
334	1.14	-	-	1.32	1.45
335	-	-	-	-	-
336	-	-	-	-	-
337	-	-	-	-	-
338	-	-	-	-	-
339	-	-	-	-	-
340	Trace	-	-	-	-
341	0.13	-	-	-	-
342	3.61	-	-	3.81	3.56
343	0.08	-	4.17	-	Trace
344	-	-	-	-	-
345	-	-	-	-	-
346	0.30	-	-	-	0.23
347	-	-	-	0.51	0.25
348	-	-	-	0.43	-
349	-	-	-	-	-
350	Trace	-	-	-	-
351	0.41	-	-	-	0.05
352	-	-	-	-	0.33

Table 21. (Continued)

Day of 1976	Central 6075, 4126	Northeast 8624, 5912	Southeast 10003, 2423	Southwest 2016, 1088	North Central 4960, 6327
	Stations (see Figure 2) — Rhode River grid locations				
353	-	-	-	-	-
354	-	-	-	-	Trace
355	0.84	-	-	-	0.25
356	-	-	-	-	0.53
357	-	-	-	-	-
358	-	-	-	-	-
359	-	-	-	-	-
360	0.53	-	-	-	1.09
361	0.58	-	-	-	-
362	-	-	-	-	-
363	-	-	-	-	-
364	0.25	-	-	-	0.25
365	-	-	-	-	-
366	-	-	-	-	-

Table 22. Daily Rainfall for Field-sized Watershed 109.

Date	Rainfall (cm/day)	Date	Rainfall (cm/day)
April 15	0.43	August 14 - 15	3.96
April 22	0.05	August 27	3.07
May 1	3.30	September 2	0.20
May 12	0.58	September 10	0.64
May 14 - 18	1.68	September 15 - 17	4.22
May 19	0.46	September 20	0.08
May 26	0.05	September 26 - 27	0.84
May 27	0.46	September 30 - October 3	5.13
May 29 - 31	3.56	October 9	4.62
June 16	4.90	October 16 - 17	0.94
June 19 - 20	0.13	October 20	3.89
June 21 - 22	0.61	October 24 - 25	3.43
June 30	0.30	October 30	2.54
July 3 - 6	0.25	November 12	0.51 (snow)
July 7	0.64		
July 11	2.67		
July 12	0.20		
July 15	0.86		
July 16	3.10		
July 21	0.23		
July 29	0.74		
July 30 - August 1	0.84		
August 7 - 9	5.64		

Wind Speed and Direction

Sunlight - Incident Total White Light Intensities

Technique - Sunlight detector was an Eppley precision pyranometer with a clear quartz dome mounted on the roof of the instrument shed at the end of the dock. Data points were recorded every 10 minutes on strip charts at the dock.

Principal Investigator: Robert Cory, U.S. Geological Survey, Chesapeake Bay Center for Environmental Studies.

Research Funding: U.S. Geological Survey.

Water Quality Monitoring Data at CBCES Dock

Parameters - Temperature (^{o} C)
pH
Dissolved oxygen (ppm)
Turbidity (Jackson units)
Salinity (ppt)
Tide height (ft)

Technique - All parameters except tide height were taken at a depth of 1 meter as described in U.S. Geological Survey, Water Resources Investigation Publication 10-74.

Principal Investigator: Robert Cory, U.S. Geological Survey, Chesapeake Bay Center for Environmental Studies.

Research Funding: U.S. Geological Survey.

Table 23. Water Quality Monitoring Data at CBCES Dock.

	WEEK	DATE MO DA YR	TEMPERATURE DEG C MAX	MIN	PH MAX	MIN	DISSOLVED OXYGEN PPM MAX	SAT	MIN	SAT	TURBIDITY JCU MAX	MIN	SALINITY PPT MAX	MIN	TIDE HEIGHT FT MAX	MIN
	1	1 1 76	4.0	3.7	8.7	8.3	****	****	****	****	21	12	*****	*****	6.6	4.8
	1	1 2 76	4.0	3.6	8.9	8.3	****	****	****	****	14	11	*****	*****	7.4	5.8
	1	1 3 76	3.8	3.2	8.9	8.6	****	****	****	****	19	9	*****	*****	7.6	6.0
	1	1 4 76	3.7	2.1	8.8	8.4	****	****	****	****	16	9	*****	*****	5.1	4.6
	1	1 5 76	2.2	1.2	9.0	8.4	****	****	11.2	86.	11	8	*****	6.50	5.4	4.1
	1	1 6 76	2.5	0.6	9.2	8.7	****	****	****	****	10	8	*****	*****	6.5	4.3
	1	1 7 76	2.2	1.9	9.3	9.0	****	****	****	****	10	7	*****	*****	6.8	5.8
EXTREME			4.0	0.6	9.3	8.3	****	****	11.2	86.	21.	7.	*****	6.50	7.6	4.1
AVERAGE			3.2	2.3	9.0	8.5	****	****	11.2	86.	14.	9.	*****	6.50	6.6	5.1
	2	1 8 76	2.7	1.7	9.3	9.0	****	****	****	****	9	6	*****	*****	6.6	4.4
	2	1 9 76	2.6	1.4	9.2	8.7	****	****	****	****	10	7	*****	*****	5.3	3.8
	2	1 10 76	4.3	1.1	9.2	8.7	****	****	****	****	10	7	*****	*****	6.2	5.4
	2	1 11 76	2.4	1.4	9.3	9.0	****	****	****	****	10	7	*****	*****	7.0	5.5
	2	1 12 76	2.6	1.4	9.4	9.0	****	****	16.2	127.	10	6	*****	*****	6.5	5.2
	2	1 13 76	3.6	2.0	9.5	8.9	****	****	****	****	8	6	*****	*****	7.4	5.0
	2	1 14 76	3.0	2.1	9.4	8.8	****	****	17.1	135.	9	4	*****	*****	7.3	5.2
EXTREME			4.3	1.1	9.5	8.7	****	****	16.2	127.	10.	4.	*****	*****	7.4	3.8
AVERAGE			3.0	1.6	9.3	8.9	****	****	16.7	131.	9.	6.	*****	*****	6.8	5.1
	3	1 15 76	3.3	2.5	9.2	8.8	****	****	17.7	140.	9	6	*****	*****	5.9	4.4
	3	1 16 76	3.3	2.6	9.2	8.9	****	****	16.4	131.	9	6	*****	7.18	6.4	4.7
	3	1 17 76	3.1	1.8	9.1	8.8	****	****	****	****	10	7	*****	*****	6.6	4.2
	3	1 18 76	2.3	0.8	9.2	8.6	****	****	****	****	10	6	*****	*****	6.1	4.2
	3	1 19 76	2.1	1.0	****	****	****	****	14.4	113.	10	6	*****	8.11	6.7	5.1
	3	1 20 76	1.7	0.9	****	****	****	****	15.5	121.	9	6	*****	7.86	6.9	5.4
	3	1 21 76	1.8	1.1	9.2	9.0	****	****	15.8	124.	10	6	*****	8.11	6.4	5.1
EXTREME			3.3	0.8	9.2	8.6	****	****	14.4	113.	10.	6.	*****	7.18	6.9	4.2
AVERAGE			2.5	1.5	9.2	8.8	****	****	16.0	126.	10.	6.	*****	7.81	6.4	4.7
	4	1 22 76	2.2	1.3	9.1	8.8	****	****	****	****	12	6	*****	*****	5.5	4.2
	4	1 23 76	2.9	1.8	9.1	8.7	****	****	15.7	126.	16	7	*****	8.30	6.0	3.8
	4	1 24 76	2.8	1.8	9.2	9.0	18.6	149.	16.7	133.	17	12	*****	*****	5.9	4.9
	4	1 25 76	2.9	2.1	9.2	8.7	18.9	****	16.2	****	17	12	*****	*****	6.7	5.2
	4	1 26 76	3.4	1.8	9.4	8.9	18.0	143.	16.6	130.	28	10	*****	7.42	7.2	5.7
	4	1 27 76	2.4	1.7	9.2	8.9	18.0	142.	15.9	124.	13	6	8.17	7.24	7.2	5.7
	4	1 28 76	2.6	1.4	9.3	8.7	18.2	145.	11.3	89.	16	10	8.49	7.05	5.9	4.2
EXTREME			3.4	1.3	9.4	8.7	18.6	149.	11.3	89.	28.	6.	8.49	7.05	7.2	3.8
AVERAGE			2.7	1.7	9.2	8.8	18.2	145.	15.2	120.	17.	9.	8.33	7.50	6.3	4.8

Table 23. (Continued)

	WEEK	DATE MO DA YR	TEMPERATURE DEG C MAX	TEMPERATURE DEG C MIN	PH MAX	PH MIN	DISSOLVED OXYGEN PPM MAX	DISSOLVED OXYGEN PPM SAT	DISSOLVED OXYGEN PPM MIN	DISSOLVED OXYGEN PPM SAT	TURBIDITY JCU MAX	TURBIDITY JCU MIN	SALINITY PPT MAX	SALINITY PPT MIN	TIDE HEIGHT FT MAX	TIDE HEIGHT FT MIN
	5	1 29 76	2.6	1.5	9.0	8.6	16.3	127.	14.3	110.	13	9	7.24	6.74	6.4	5.0
	5	1 30 76	2.3	1.6	9.1	8.6	17.0	133.	14.3	110.	11	7	7.42	6.68	6.5	4.7
	5	1 31 76	2.3	1.8	9.0	8.7	16.6	131.	14.6	114.	10	7	7.05	6.38	6.7	5.4
	5	2 1 76	2.7	2.2	9.0	8.8	16.4	129.	15.1	119.	9	6	6.56	6.07	7.3	5.9
	5	2 2 76	2.8	0.6	8.9	8.6	15.2	120.	13.7	106.	15	7	6.38	5.83	6.3	4.5
	5	2 3 76	1.8	0.5	8.8	8.5	14.8	114.	13.3	102.	10	6	6.50	6.01	5.5	4.2
	5	2 4 76	2.1	1.5	8.8	8.5	15.4	120.	13.7	107.	11	6	6.62	6.25	5.3	4.0
EXTREME			2.8	0.5	9.1	8.5	17.0	133.	13.3	102.	15.	6.	7.42	5.83	7.3	4.0
AVERAGE			2.4	1.4	8.9	8.6	16.0	125.	14.1	110.	11.	7.	6.82	6.28	6.3	4.8
	6	2 5 76	3.0	1.9	9.0	8.8	16.0	128.	14.7	115.	11	7	6.50	6.07	5.7	4.4
	6	2 6 76	2.9	1.7	8.9	8.6	15.8	125.	14.4	112.	10	8	6.25	5.52	6.1	5.1
	6	2 7 76	3.3	1.9	8.9	8.7	15.6	125.	14.6	114.	11	7	6.07	5.64	5.7	4.7
	6	2 8 76	3.3	1.8	8.8	8.6	15.5	122.	14.2	109.	9	7	6.01	5.64	6.9	5.3
	6	2 9 76	3.8	2.1	8.9	8.6	15.7	126.	14.6	114.	9	7	5.89	5.58	6.1	4.5
	6	2 10 76	4.3	2.8	8.9	8.6	15.8	129.	14.5	115.	8	6	6.07	5.58	7.2	5.8
	6	2 11 76	3.9	2.7	8.8	8.6	15.2	122.	13.7	109.	9	6	6.01	5.46	6.9	4.8
EXTREME			4.3	1.7	9.0	8.6	16.0	129.	13.7	109.	11.	6.	6.50	5.46	7.2	4.4
AVERAGE			3.5	2.1	8.9	8.6	15.7	125.	14.4	112.	10.	7.	6.11	5.65	6.4	4.9
	7	2 12 76	4.4	2.3	8.7	8.5	14.4	118.	13.4	106.	12	6	6.13	5.52	6.1	4.5
	7	2 13 76	5.4	3.7	8.8	8.5	14.6	122.	13.1	106.	11	7	6.13	5.58	6.7	5.3
	7	2 14 76	6.4	4.0	8.8	8.5	15.0	129.	13.2	110.	15	7	6.25	5.83	6.2	4.5
	7	2 15 76	6.4	4.7	8.8	8.4	14.1	121.	12.5	105.	12	7	6.38	5.46	6.8	5.3
	7	2 16 76	7.9	5.8	8.8	8.5	13.9	121.	12.5	112.	11	6	6.44	5.83	6.7	5.0
	7	2 17 76	9.0	7.1	8.9	8.5	13.7	124.	12.2	109.	8	5	6.50	6.07	6.4	4.8
	7	2 18 76	10.6	8.3	8.9	8.5	13.4	122.	11.9	112.	9	6	6.50	5.95	7.2	4.8
EXTREME			10.6	2.3	8.9	8.4	15.0	129.	11.9	105.	15.	5.	6.50	5.46	7.2	4.5
AVERAGE			7.2	5.1	8.8	8.5	14.2	122.	12.7	108.	11.	6.	6.33	5.75	6.6	4.9
	8	2 19 76	10.4	9.2	8.9	8.5	12.7	120.	11.4	106.	8	5	6.44	5.83	7.1	5.7
	8	2 20 76	10.1	9.0	8.9	8.6	12.8	120.	11.4	105.	8	5	6.19	5.77	6.6	5.3
	8	2 21 76	10.7	8.7	8.9	8.5	12.6	117.	11.4	103.	10	5	6.01	5.16	6.9	5.0
	8	2 22 76	10.4	9.3	8.8	8.6	11.7	109.	10.9	103.	13	6	6.07	5.64	7.4	5.4
	8	2 23 76	9.3	7.5	8.8	8.4	12.7	115.	10.5	95.	15	6	6.01	5.58	5.4	4.3
	8	2 24 76	8.5	6.2	9.1	8.5	13.5	121.	11.6	99.	12	7	5.89	5.26	6.5	4.9
	8	2 25 76	8.9	7.1	9.1	8.7	14.5	132.	11.9	106.	11	6	5.89	5.34	5.9	4.9
EXTREME			10.7	6.2	9.1	8.4	14.5	132.	10.5	95.	15.	5.	6.44	5.16	7.4	4.3
AVERAGE			9.8	8.1	8.9	8.5	12.9	119.	11.3	102.	11.	6.	6.07	5.52	6.5	5.1

Table 23. (Continued)

		DATE	TEMPERATURE DEG C		PH		DISSOLVED OXYGEN PPM				TURBIDITY JCU		SALINITY PPT		TIDE HEIGHT FT	
	WEEK	MO DA YR	MAX	MIN	MAX	MIN	MAX	SAT	MIN	SAT	MAX	MIN	MAX	MIN	MAX	MIN
	9	2 26 76	9.0	8.1	9.1	8.9	14.2	130.	13.0	117.	8	6	5.77	5.04	6.5	5.2
	9	2 27 76	10.4	8.1	9.1	8.8	14.8	137.	13.5	121.	9	6	5.58	4.92	6.5	5.2
	9	2 28 76	10.0	8.6	9.2	8.8	14.9	137.	13.2	119.	12	6	5.34	4.80	6.7	5.4
	9	2 29 76	11.1	8.8	9.2	8.7	14.4	134.	13.4	121.	27	8	5.22	4.80	6.5	5.2
	9	3 1 76	11.9	10.1	9.2	9.0	14.2	137.	13.0	123.	15	7	5.16	4.33	6.8	5.1
	9	3 2 76	10.8	10.1	9.2	8.9	14.8	137.	12.3	115.	15	10	4.68	4.09	6.4	5.2
	9	3 3 76	10.2	9.1	9.3	8.8	15.1	137.	12.4	113.	14	9	4.33	3.62	7.4	5.8
EXTREME			11.9	8.1	9.3	8.7	15.1	137.	12.3	113.	27.	6.	5.77	3.62	7.4	5.1
AVERAGE			10.5	9.0	9.2	8.8	14.6	136.	13.0	118.	14.	7.	5.15	4.51	6.7	5.3
	10	3 4 76	9.5	8.7	9.5	9.1	15.8	142.	13.1	117.	10	7	3.79	3.44	7.2	5.9
	10	3 5 76	12.0	8.6	9.5	9.2	14.4	130.	12.5	119.	15	8	3.85	3.33	6.9	5.7
	10	3 6 76	11.6	10.4	9.4	9.2	14.1	123.	11.5	109.	16	9	3.85	3.62	6.3	5.0
	10	3 7 76	10.8	9.7	9.4	9.1	13.4	124.	11.8	108.	18	11	3.85	3.56	6.3	4.9
	10	3 8 76	10.5	9.4	9.5	9.2	14.9	137.	12.4	113.	17	9	3.74	3.38	6.2	5.2
	10	3 9 76	9.7	6.8	9.4	9.0	13.2	120.	11.2	97.	21	12	3.68	3.33	7.6	5.4
	10	3 10 76	7.6	6.2	9.5	9.0	13.9	120.	10.7	90.	15	12	3.50	3.27	7.6	6.1
EXTREME			12.0	6.2	9.5	9.0	15.8	142.	10.7	90.	21.	7.	3.85	3.27	7.6	4.9
AVERAGE			10.2	8.5	9.5	9.1	14.1	128.	11.9	107.	16.	10.	3.75	3.42	6.9	5.5
	11	3 11 76	8.1	6.4	9.5	9.3	14.1	123.	12.4	104.	15	10	3.56	3.21	7.6	6.1
	11	3 12 76	7.8	6.4	9.5	9.2	14.6	123.	13.1	110.	15	11	3.44	2.81	7.0	5.4
	11	3 13 76	8.7	6.6	9.5	9.2	13.3	116.	12.2	106.	17	12	3.56	2.92	7.5	5.0
	11	3 14 76	9.3	6.9	9.5	9.1	13.8	123.	11.4	98.	19	13	3.50	3.15	6.0	4.1
	11	3 15 76	9.8	7.8	9.5	9.2	14.4	131.	12.6	110.	19	12	3.56	3.15	6.6	5.1
	11	3 16 76	9.5	8.0	9.3	8.9	13.3	120.	11.6	101.	18	12	3.50	3.15	7.1	4.9
	11	3 17 76	8.0	5.8	8.9	8.6	11.9	102.	10.8	91.	20	13	3.74	3.09	5.7	4.3
EXTREME			9.8	5.8	9.5	8.6	14.6	131.	10.8	91.	20.	10.	3.74	2.81	7.6	4.1
AVERAGE			8.7	6.8	9.4	9.1	13.6	120.	12.0	103.	18.	12.	3.55	3.07	6.8	5.0
	12	3 18 76	6.6	4.7	8.9	8.5	11.4	95.	10.8	87.	16	10	3.62	3.27	6.1	4.3
	12	3 19 76	8.9	6.0	8.5	8.3	10.9	96.	10.4	88.	14	11	3.74	3.27	6.3	5.0
	12	3 20 76	11.3	8.0	8.3	8.0	11.1	103.	10.2	91.	14	10	3.97	3.62	6.2	4.7
	12	3 21 76	12.0	10.3	8.1	7.8	10.6	98.	9.7	90.	18	11	4.38	3.74	6.9	5.4
	12	3 22 76	12.1	10.0	8.3	7.7	11.5	110.	9.5	88.	13	8	4.38	3.97	5.9	4.6
	12	3 23 76	12.1	9.6	8.9	7.9	13.8	132.	10.4	95.	15	10	4.33	3.97	6.2	5.1
	12	3 24 76	12.4	10.1	9.2	8.5	14.9	143.	11.9	111.	16	10	4.62	4.09	6.8	5.7
EXTREME			12.4	4.7	9.2	7.7	14.9	143.	9.5	87.	18.	8.	4.62	3.27	6.9	4.3
AVERAGE			10.8	8.4	8.6	8.1	12.0	111.	10.4	93.	15.	10.	4.15	3.70	6.3	5.0

Table 23. (Continued)

	WEEK	DATE NO DA YR	TEMPERATURE DEG C MAX	MIN	PH MAX	MIN	DISSOLVED OXYGEN PPM MAX	SAT	MIN	SAT	TURBIDITY JCU MAX	MIN	SALINITY PPT MAX	MIN	TIDE HEIGHT FT MAX	MIN
	13	3 25 76	12.4	11.0	9.4	8.9	15.5	150.	11.9	112.	17	12	4.56	4.27	6.8	5.4
	13	3 26 76	13.9	10.7	9.4	9.0	15.8	156.	12.4	117.	22	11	4.74	4.38	6.4	5.1
	13	3 27 76	13.2	11.8	9.3	8.9	13.7	135.	10.5	103.	22	16	4.80	4.44	7.2	6.0
	13	3 28 76	14.2	11.7	9.4	8.7	15.3	154.	9.0	87.	19	15	5.16	4.68	6.9	5.1
	13	3 29 76	13.7	12.0	9.5	9.0	16.6	165.	10.9	105.	19	15	5.16	4.62	6.5	5.3
	13	3 30 76	13.7	12.7	9.4	9.0	15.2	151.	11.2	110.	20	16	5.04	4.38	6.6	5.5
	13	3 31 76	13.1	12.1	9.3	8.9	13.4	131.	10.0	98.	21	17	4.98	4.56	7.6	6.1
EXTREME			14.2	10.7	9.5	8.7	16.6	165.	9.0	87.	22.	11.	5.16	4.27	7.6	5.1
AVERAGE			13.5	11.7	9.4	8.9	15.1	149.	10.8	105.	20.	15.	4.92	4.48	6.9	5.5
	14	4 1 76	13.0	12.2	9.3	8.9	13.8	136.	9.9	96.	19	14	5.16	4.44	8.3	5.6
	14	4 2 76	12.7	11.4	9.3	9.0	12.5	122.	10.8	105.	20	16	5.04	4.62	7.1	4.8
	14	4 3 76	12.8	10.6	9.5	8.9	13.3	129.	10.2	96.	19	15	4.74	4.56	6.1	4.7
	14	4 4 76	12.1	11.4	9.4	9.2	12.7	122.	11.0	106.	20	15	4.74	4.27	7.3	4.9
	14	4 5 76	12.7	10.4	9.5	9.1	12.9	126.	10.6	100.	20	15	4.74	4.38	6.4	4.6
	14	4 6 76	13.4	11.0	9.6	9.1	13.0	129.	10.9	103.	18	15	4.80	4.44	7.0	5.5
	14	4 7 76	14.6	12.1	9.6	9.1	13.7	139.	10.8	105.	20	15	4.86	4.50	6.5	5.2
EXTREME			14.6	10.4	9.6	8.9	13.8	139.	9.9	96.	20.	14.	5.16	4.27	8.3	4.6
AVERAGE			13.0	11.3	9.5	9.0	13.1	129.	10.6	102.	19.	15.	4.87	4.46	7.0	5.0
	15	4 8 76	14.5	13.0	9.5	9.2	14.3	145.	11.0	109.	20	14	4.92	4.56	7.1	5.6
	15	4 9 76	13.9	12.6	9.5	9.2	12.3	122.	10.3	101.	27	17	4.92	4.44	6.4	5.1
	15	4 10 76	12.6	11.5	9.4	9.1	11.7	114.	9.8	94.	18	13	4.86	4.56	7.0	5.0
	15	4 11 76	12.3	11.2	9.3	9.1	10.9	105.	9.9	96.	18	13	4.92	4.50	7.2	5.1
	15	4 12 76	11.4	9.6	9.3	9.0	12.1	115.	9.5	87.	20	14	4.80	4.50	5.7	4.0
	15	4 13 76	12.2	10.0	9.4	8.9	14.0	135.	10.6	98.	17	12	4.86	4.44	6.3	5.1
	15	4 14 76	14.1	10.3	9.5	9.2	16.1	162.	12.0	112.	14	12	4.80	4.44	6.5	4.9
EXTREME			14.5	9.6	9.5	8.9	16.1	162.	9.5	87.	27.	12.	4.92	4.44	7.2	4.0
AVERAGE			13.0	11.2	9.4	9.1	13.1	128.	10.4	99.	19.	14.	4.87	4.50	6.6	5.0
	16	4 15 76	14.7	12.4	9.6	9.2	15.6	158.	13.2	129.	17	12	4.92	4.44	6.6	5.2
	16	4 16 76	16.9	13.7	9.6	9.1	15.6	160.	11.3	113.	17	12	4.98	4.38	6.9	4.9
	16	4 17 76	19.4	15.0	9.7	9.3	16.7	185.	12.4	128.	***	***	4.98	4.62	6.6	4.9
	16	4 18 76	21.4	16.9	9.6	9.1	15.4	172.	11.4	122.	***	***	5.04	4.68	6.5	4.8
	16	4 19 76	21.4	18.3	9.5	9.0	13.3	154.	9.6	106.	***	***	5.16	4.86	6.6	5.3
	16	4 20 76	23.0	19.7	9.6	9.0	13.6	163.	8.2	93.	***	***	5.22	4.92	6.8	5.4
	16	4 21 76	23.6	20.6	9.3	8.7	12.4	149.	6.8	78.	***	***	5.34	4.86	6.6	5.4
EXTREME			23.6	12.4	9.7	8.7	16.7	185.	6.8	78.	17.	12.	5.34	4.38	6.9	4.8
AVERAGE			20.1	16.7	9.6	9.1	14.7	163.	10.4	110.	17.	12.	5.09	4.68	6.7	5.1

Table 23. (Continued)

	WEEK	DATE MO DA YR	TEMPERATURE DEG C MAX	MIN	PH MAX	MIN	DISSOLVED OXYGEN PPM MAX	SAT	MIN	SAT	TURBIDITY JCU MAX	MIN	SALINITY PPT MAX	MIN	TIDE HEIGHT FT MAX	MIN
	17	4 22 76	23.2	21.4	9.2	8.0	11.4	138.	4.9	57.	16	10	5.40	4.98	7.1	6.0
	17	4 23 76	22.0	20.4	9.0	7.8	11.2	131.	5.1	59.	16	9	5.89	5.46	6.8	5.6
	17	4 24 76	21.6	19.2	9.2	7.5	14.0	164.	5.2	59.	17	10	5.95	5.34	6.6	5.9
	17	4 25 76	20.6	19.7	9.1	8.6	11.9	136.	9.1	104.	20	17	5.83	5.46	7.1	6.2
	17	4 26 76	19.7	17.2	8.8	8.2	10.7	118.	7.0	79.	20	14	6.19	5.64	7.2	4.5
	17	4 27 76	17.1	15.3	8.9	8.2	12.2	129.	7.9	84.	18	14	6.07	5.71	5.2	4.3
	17	4 28 76	15.7	14.4	9.4	8.7	12.8	133.	10.1	103.	18	14	6.07	5.71	5.3	4.4
EXTREME			23.2	14.4	9.4	7.5	14.0	164.	4.9	57.	20.	9.	6.19	4.98	7.2	4.3
AVERAGE			20.0	18.2	9.1	8.1	12.0	136.	7.0	78.	18.	13.	5.91	5.47	6.5	5.3
	18	4 29 76	16.2	14.2	9.6	9.0	14.0	148.	10.5	107.	15	13	6.19	5.77	5.9	4.9
	18	4 30 76	17.7	14.6	9.5	9.1	14.1	154.	10.8	111.	16	12	6.13	5.77	7.0	5.6
	18	5 1 76	16.8	16.1	9.0	9.3	12.0	127.	8.6	92.	***	***	6.25	5.69	7.5	6.0
	18	5 2 76	19.1	15.7	9.5	8.8	12.4	138.	8.0	84.	***	***	6.31	5.52	7.3	5.5
	18	5 3 76	18.2	17.0	9.4	9.0	13.1	144.	9.9	107.	18	11	6.13	5.71	7.1	5.2
	18	5 4 76	17.5	16.3	9.4	9.0	12.9	140.	10.1	108.	20	15	6.13	5.77	5.9	5.0
	18	5 5 76	18.4	16.2	9.5	9.0	12.8	141.	10.3	109.	19	16	6.18	5.83	6.9	5.4
EXTREME			19.1	14.2	9.6	8.8	14.1	154.	8.0	84.	20.	11.	6.31	5.52	7.5	4.9
AVERAGE			17.7	15.7	9.4	9.0	13.0	142.	9.7	103.	18.	13.	6.19	5.75	6.8	5.4
	19	5 6 76	20.5	16.8	9.6	9.1	12.8	147.	9.3	100.	33	16	6.50	5.89	6.4	5.2
	19	5 7 76	20.9	18.8	9.4	9.1	11.2	130.	9.0	100.	28	18	6.31	5.95	****	****
	19	5 8 76	20.5	18.4	9.4	8.8	11.9	137.	7.5	84.	36	18	6.74	6.19	****	****
	19	5 9 76	20.6	17.6	9.3	8.8	11.2	129.	8.4	92.	36	20	6.62	6.25	****	****
	19	5 10 76	20.6	18.0	9.1	8.6	10.6	122.	7.8	86.	30	18	6.74	6.19	****	****
	19	5 11 76	20.4	19.6	9.1	8.6	10.0	115.	8.2	93.	30	24	6.87	6.44	7.4	5.8
	19	5 12 76	20.7	18.6	9.0	8.2	10.7	123.	6.9	77.	28	18	6.74	6.44	7.1	5.0
EXTREME			20.9	16.8	9.6	8.2	12.8	147.	6.9	77.	36.	16.	6.87	5.89	7.4	5.0
AVERAGE			20.6	18.3	9.3	8.7	11.2	129.	8.2	90.	32.	19.	6.65	6.19	7.0	5.3
	20	5 13 76	19.6	18.4	9.0	8.4	10.7	121.	7.8	87.	25	18	6.81	6.38	6.8	5.4
	20	5 14 76	****	****	****	****	****	****	****	****	***	18	6.68	6.38	6.9	5.3
	20	5 15 76	22.4	20.0	9.1	8.7	11.2	134.	8.7	100.	20	14	6.50	6.01	6.8	4.9
	20	5 16 76	22.0	21.2	8.8	8.5	9.2	109.	7.8	91.	23	13	6.38	6.13	6.5	4.6
	20	5 17 76	22.5	21.2	8.8	8.2	9.4	112.	6.6	77.	14	10	6.44	6.25	7.0	5.5
	20	5 18 76	22.3	19.6	8.6	7.6	8.3	99.	5.7	65.	18	10	6.50	6.25	7.0	4.9
	20	5 19 76	19.6	17.1	****	****	8.0	87.	5.3	59.	23	15	6.56	6.26	5.5	4.2
EXTREME			22.5	17.1	9.1	7.6	11.2	134.	5.3	59.	25.	10.	6.81	6.01	7.0	4.2
AVERAGE			21.4	19.6	8.8	8.3	9.6	110.	7.0	80.	21.	14.	6.65	6.24	6.6	5.0

Table 23. (Continued)

	WEEK	DATE MO DA YR	TEMPERATURE DEG C MAX	TEMPERATURE DEG C MIN	PH MAX	PH MIN	DISSOLVED OXYGEN PPM MAX	DISSOLVED OXYGEN PPM SAT	DISSOLVED OXYGEN PPM MIN	DISSOLVED OXYGEN PPM SAT	TURBIDITY JCU MAX	TURBIDITY JCU MIN	SALINITY PPT MAX	SALINITY PPT MIN	TIDE HEIGHT FT MAX	TIDE HEIGHT FT MIN
	21	5 20 76	18.4	16.2	****	****	9.0	100.	7.1	76.	18	12	6.62	6.38	6.2	4.9
	21	5 21 76	19.1	17.6	8.1	7.6	8.8	99.	6.7	73.	18	12	6.62	6.38	6.5	4.7
	21	5 22 76	20.4	18.2	8.5	7.6	10.1	117.	7.0	78.	20	13	6.74	6.31	7.0	5.5
	21	5 23 76	20.9	18.5	8.4	7.7	10.2	119.	7.3	82.	23	15	6.68	6.31	7.0	5.7
	21	5 24 76	21.3	19.3	8.4	7.7	9.8	115.	7.4	84.	24	18	6.87	6.38	7.1	5.6
	21	5 25 76	21.4	19.7	8.4	7.7	9.5	112.	7.2	82.	22	11	6.62	6.25	7.0	6.2
	21	5 26 76	20.7	19.2	7.8	7.6	8.0	91.	6.9	78.	16	13	6.62	6.25	7.6	6.1
EXTREME			21.4	16.2	8.5	7.6	10.2	119.	6.7	73.	24.	11.	6.87	6.25	7.6	4.7
AVERAGE			20.3	18.4	8.3	7.6	9.3	107.	7.1	79.	20.	13.	6.68	6.32	6.9	5.5
	22	5 27 76	21.6	18.9	8.5	7.2	10.4	123.	5.8	65.	17	9	6.74	6.44	7.2	5.3
	22	5 28 76	23.2	19.8	8.4	7.6	10.4	125.	7.3	84.	16	9	6.74	6.44	6.6	5.4
	22	5 29 76	21.7	20.1	8.1	7.7	8.6	100.	7.4	87.	18	11	6.62	6.25	7.3	5.8
	22	5 30 76	21.2	20.1	8.5	7.5	10.4	122.	6.6	76.	14	10	6.50	5.83	7.6	5.6
	22	5 31 76	23.0	20.7	8.8	7.6	12.1	146.	7.0	81.	15	10	6.38	5.64	7.0	5.7
	22	6 1 76	25.8	21.6	9.0	8.0	12.8	162.	8.0	94.	13	10	6.38	5.77	7.0	5.8
	22	6 2 76	24.2	21.3	8.6	7.6	11.0	136.	7.4	68.	23	11	6.25	5.95	7.1	5.6
EXTREME			25.8	18.9	9.0	7.2	12.8	162.	5.8	65.	23.	9.	6.74	5.64	7.6	5.3
AVERAGE			23.0	20.4	8.6	7.6	10.8	131.	7.1	82.	17.	10.	6.52	6.05	7.1	5.6
	23	6 3 76	21.8	20.4	8.6	7.4	11.4	134.	6.6	76.	18	11	6.31	6.01	7.8	6.2
	23	6 4 76	22.4	20.1	8.6	7.9	11.7	139.	8.8	101.	17	10	6.38	5.95	7.1	6.0
	23	6 5 76	22.6	20.5	8.6	7.8	10.9	131.	7.8	90.	14	11	6.50	6.07	6.9	5.9
	23	6 6 76	23.7	21.1	8.5	7.7	10.6	130.	7.6	89.	18	10	6.50	6.07	6.9	5.7
	23	6 7 76	24.4	21.7	8.7	7.9	10.9	134.	8.2	97.	***	11	6.50	6.07	6.9	5.3
	23	6 8 76	25.7	22.8	8.9	7.7	12.5	157.	6.5	78.	***	***	6.38	5.95	6.6	4.9
	23	6 9 76	27.8	23.8	9.0	7.8	14.2	159.	6.8	84.	16	12	6.68	6.07	6.6	5.4
EXTREME			27.8	20.1	9.0	7.4	12.5	159.	6.5	76.	18.	10.	6.68	5.95	7.8	4.9
AVERAGE			24.1	21.5	8.7	7.7	11.5	141.	7.5	88.	17.	11.	6.46	6.03	7.0	5.6
	24	6 10 76	28.0	25.4	9.0	8.4	12.8	168.	8.7	110.	***	***	6.62	6.13	7.2	5.6
	24	6 11 76	27.8	25.9	9.1	8.3	13.0	171.	7.5	96.	***	12	6.50	6.13	7.3	5.4
	24	6 12 76	27.9	25.5	8.8	7.9	10.8	142.	6.3	80.	***	***	6.38	6.01	6.9	5.4
	24	6 13 76	25.7	24.6	8.5	7.9	10.0	126.	6.8	85.	***	***	6.38	6.07	7.4	5.8
	24	6 14 76	24.6	23.8	8.7	8.1	10.5	131.	5.8	71.	18	11	6.62	6.19	7.6	6.0
	24	6 15 76	26.8	24.0	8.8	7.9	10.4	133.	6.3	78.	20	12	6.74	6.31	7.9	5.7
	24	6 16 76	26.6	24.8	8.8	7.8	10.3	132.	6.0	75.	19	11	6.62	6.44	6.9	5.6
EXTREME			28.0	23.8	9.1	7.8	13.0	171.	5.8	71.	20.	11.	6.74	6.01	7.9	5.4
AVERAGE			26.8	24.9	8.8	8.0	11.1	143.	6.8	85.	19.	12.	6.55	6.18	7.3	5.6

Table 23. (Continued)

	WEEK	DATE MO DA YR	TEMPERATURE DEG C MAX	TEMPERATURE DEG C MIN	PH MAX	PH MIN	DISSOLVED OXYGEN PPM MAX	DISSOLVED OXYGEN PPM SAT	DISSOLVED OXYGEN PPM MIN	DISSOLVED OXYGEN PPM SAT	TURBIDITY JCU MAX	TURBIDITY JCU MIN	SALINITY PPT MAX	SALINITY PPT MIN	TIDE HEIGHT FT MAX	TIDE HEIGHT FT MIN
	25	6 17 76	27.5	25.2	8.8	7.4	10.1	132.	6.2	79.	26	15	6.99	5.52	6.6	5.2
	25	6 18 76	27.9	25.3	8.7	7.7	10.4	135.	6.0	76.	20	7	6.56	5.89	6.8	5.6
	25	6 19 76	28.8	26.2	8.8	8.0	10.8	144.	6.2	81.	19	12	6.13	5.64	7.1	5.7
	25	6 20 76	28.2	27.1	8.7	8.0	10.2	134.	6.2	81.	21	11	6.25	5.89	7.4	6.0
	25	6 21 76	27.9	26.7	8.6	7.8	****	****	****	****	17	12	6.50	6.07	7.4	6.3
	25	6 22 76	28.6	26.6	8.6	7.9	****	****	****	****	24	12	6.81	6.25	7.4	5.9
	25	6 23 76	30.4	27.3	8.7	7.5	****	****	****	****	20	14	6.62	6.13	7.2	5.5
EXTREME			30.4	25.2	8.8	7.4	10.8	144.	6.0	76.	26.	7.	6.99	5.52	7.4	5.2
AVERAGE			28.5	26.3	8.7	7.8	10.4	137.	6.2	79.	21.	12.	6.55	5.91	7.1	5.7
	26	6 24 76	30.2	28.1	8.6	7.8	****	****	****	****	20	14	6.87	6.31	6.9	5.7
	26	6 25 76	29.8	27.8	8.5	7.4	****	****	****	****	20	15	6.93	6.50	6.8	5.0
	26	6 26 76	29.7	27.2	8.1	7.2	****	****	****	****	20	14	7.05	6.74	6.4	5.1
	26	6 27 76	30.8	27.5	7.8	7.2	****	****	****	****	22	12	7.36	6.74	6.7	5.8
	26	6 28 76	31.1	28.4	****	****	****	****	****	****	23	17	7.86	7.05	7.2	5.9
	26	6 29 76	31.7	29.0	8.7	****	****	****	****	****	23	16	7.73	7.11	7.4	6.1
	26	6 30 76	29.5	29.0	8.1	7.6	[illegible].0	101.	9.9	****	23	19	7.49	7.24	7.4	6.1
EXTREME			31.7	27.2	8.7	7.2	8.0	101.	****	****	23.	12.	7.86	6.31	7.4	5.0
AVERAGE			30.4	28.1	8.3	7.4	8.0	101.	****	****	22.	15.	7.33	6.82	7.0	5.7
	27	7 1 76	29.9	28.2	8.2	7.4	8.4	115.	4.4	59.	24	17	7.42	7.30	7.1	5.7
	27	7 2 76	29.0	27.6	8.6	7.4	10.0	135.	4.6	61.	26	16	7.61	7.30	6.7	5.4
	27	7 3 76	****	****	****	7.6	****	****	5.2	68.	21	16	*****	*****	7.1	5.5
	27	7 4 76	****	****	****	****	****	****	****	****	***	***	*****	*****	6.9	5.2
	27	7 5 76	****	****	****	****	****	****	****	****	***	***	*****	*****	6.8	5.7
	27	7 6 76	29.5	27.2	8.6	7.7	11.1	147.	****	****	25	17	7.49	7.24	7.2	5.6
	27	7 7 76	27.8	26.8	8.4	7.7	8.9	118.	5.9	77.	26	18	7.36	7.11	7.3	5.7
EXTREME			29.9	26.8	8.6	7.4	11.1	147.	4.4	59.	26.	16.	7.61	7.11	7.3	5.2
AVERAGE			29.1	27.5	8.4	7.6	9.6	129.	5.0	66.	24.	17.	7.47	7.24	7.0	5.5
	28	7 8 76	28.1	26.1	8.5	7.5	9.2	122.	4.6	59.	23	17	7.30	7.11	7.3	5.3
	28	7 9 76	28.8	26.6	8.7	7.6	10.8	145.	5.2	68.	25	15	7.49	6.99	6.9	5.1
	28	7 10 76	****	27.2	****	7.9	****	****	6.4	84.	24	18	7.30	6.99	6.8	5.4
	28	7 11 76	****	****	****	****	****	****	****	****	***	***	*****	*****	7.2	5.0
	28	7 12 76	****	****	8.5	7.6	8.6	113.	4.4	57.	26	15	7.24	6.87	6.9	4.7
	28	7 13 76	****	****	8.6	7.8	9.5	124.	5.7	73.	25	16	7.11	6.87	5.9	4.7
	28	7 14 76	****	24.7	****	7.9	****	****	6.1	76.	22	16	7.05	6.81	6.3	****
EXTREME			28.8	24.7	8.7	7.5	10.8	145.	4.4	57.	26.	15.	7.49	6.81	7.3	4.7
AVERAGE			28.5	26.2	8.6	7.7	9.5	126.	5.4	69.	24.	16.	7.25	6.9[illegible]	6.8	5.0

Table 23. (Continued)

	WEEK	DATE MO DA YR	TEMPERATURE DEG C MAX	TEMPERATURE DEG C MIN	PH MAX	PH MIN	DISSOLVED OXYGEN PPM MAX	DISSOLVED OXYGEN PPM SAT	DISSOLVED OXYGEN PPM MIN	DISSOLVED OXYGEN PPM SAT	TURBIDITY JCU MAX	TURBIDITY JCU MIN	SALINITY PPT MAX	SALINITY PPT MIN	TIDE HEIGHT FT MAX	TIDE HEIGHT FT MIN
	29	7 15 76	****	****	8.9	****	12.4	157.	****	****	***	***	7.11	6.87	6.9	****
	29	7 16 76	****	25.9	8.9	8.1	11.5	148.	6.7	85.	21	9	7.11	6.68	6.9	5.8
	29	7 17 76	****	****	8.9	7.7	9.9	129.	4.7	61.	20	14	7.30	7.00	2.5	5.2
	29	7 18 76	****	****	8.7	7.8	9.5	123.	5.4	69.	22	16	7.30	6.93	6.6	5.5
	29	7 19 76	****	****	8.6	7.6	8.2	107.	4.4	57.	28	20	7.11	6.87	6.5	5.3
	29	7 20 76	****	****	8.5	7.5	****	****	****	****	***	***	7.36	6.87	6.6	5.5
	29	7 21 76	****	****	8.2	7.4	****	****	****	****	***	***	*****	*****	6.3	5.1
EXTREME			****	25.9	8.9	7.4	12.4	157.	4.4	57.	28.	9.	7.36	6.68	6.9	5.1
AVERAGE			****	25.9	8.7	7.7	10.3	133.	5.3	68.	23.	15.	7.22	6.87	6.0	5.4
	30	7 22 76	****	****	****	****	****	****	****	****	***	***	*****	*****	6.7	5.9
	30	7 23 76	****	****	****	****	****	****	****	****	***	***	*****	*****	7.1	5.3
	30	7 24 76	****	****	****	****	****	****	****	****	***	***	*****	*****	6.9	5.1
	30	7 25 76	****	****	****	****	****	****	****	****	***	***	*****	*****	6.9	5.8
	30	7 26 76	****	****	8.7	****	12.6	168.	6.2	82.	30	22	7.86	7.61	6.9	5.8
	30	7 27 76	****	27.6	8.7	7.7	10.3	139.	5.9	78.	29	20	7.80	7.49	7.4	5.5
	30	7 28 76	****	28.7	8.9	7.5	12.3	167.	4.7	63.	24	20	7.73	7.49	6.9	5.4
EXTREME			****	27.6	8.9	7.5	12.6	168.	4.7	63.	30.	20.	7.86	7.49	7.4	5.1
AVERAGE			****	28.2	8.8	7.6	11.7	158.	5.6	74.	28.	21.	7.80	7.53	7.0	5.5
	31	7 29 76	****	29.7	8.9	8.0	11.7	159.	6.8	92.	25	19	7.80	7.42	7.2	5.6
	31	7 30 76	****	29.3	8.7	7.7	10.6	144.	5.2	70.	24	16	7.86	7.42	7.1	5.7
	31	7 31 76	****	****	8.8	7.5	11.8	162.	4.6	62.	30	18	7.80	7.42	7.2	5.6
	31	8 1 76	****	****	8.5	7.4	9.6	126.	3.5	46.	26	17	8.11	7.61	6.8	5.3
	31	8 2 76	****	26.5	8.5	7.1	11.4	150.	2.0	26.	34	22	8.11	7.86	6.8	5.4
	31	8 3 76	****	****	8.9	7.3	15.1	201.	4.0	53.	34	26	8.11	7.73	7.0	5.5
	31	8 4 76	****	28.4	8.8	7.4	14.2	191.	4.2	56.	40	27	8.23	7.73	7.1	5.5
EXTREME			****	26.5	8.9	7.1	15.1	201.	2.0	26.	40.	16.	8.23	7.42	7.2	5.3
AVERAGE			****	28.5	8.7	7.5	12.1	162.	4.3	58.	30.	21.	8.00	7.60	7.0	5.5
	32	8 5 76	****	****	8.6	7.5	5.7	77.	4.5	60.	37	25	8.30	7.86	7.1	5.8
	32	8 6 76	****	28.3	8.9	7.7	12.4	166.	5.3	71.	35	23	8.36	7.92	7.4	5.5
	32	8 7 76	****	****	8.7	7.9	8.5	111.	5.0	66.	35	29	8.23	7.80	7.0	5.7
	32	8 8 76	****	****	8.2	7.5	6.2	81.	3.0	39.	***	***	8.36	7.30	7.3	5.6
	32	8 9 76	****	25.5	7.8	7.1	6.8	87.	3.8	48.	30	22	8.42	7.55	7.2	4.3
	32	8 10 76	****	26.0	8.6	7.0	10.9	141.	2.5	32.	26	17	8.67	7.96	7.1	4.9
	32	8 11 76	****	26.8	8.8	7.4	13.2	173.	5.1	67.	24	17	8.61	8.23	6.4	5.1
EXTREME			****	25.5	8.9	7.0	13.2	173.	2.5	32.	37.	17.	8.67	7.30	7.4	4.3
AVERAGE			****	26.7	8.5	7.4	9.1	120.	4.2	55.	31.	22.	8.42	7.81	7.1	5.3

Table 23. (Continued)

	WEEK	DATE MO DA YR	TEMPERATURE DEG C MAX	TEMPERATURE DEG C MIN	PH MAX	PH MIN	DISSOLVED OXYGEN PPM MAX	DISSOLVED OXYGEN PPM SAT	DISSOLVED OXYGEN PPM MIN	DISSOLVED OXYGEN PPM SAT	TURBIDITY JCU MAX	TURBIDITY JCU MIN	SALINITY PPT MAX	SALINITY PPT MIN	TIDE HEIGHT FT MAX	TIDE HEIGHT FT MIN
	33	8 12 76	****	27.8	8.8	8.0	12.8	170.	7.2	96.	27	18	8.61	8.36	6.9	5.5
	33	8 13 76	****	29.1	9.0	7.8	13.9	189.	6.0	82.	27	20	8.86	8.49	7.1	5.8
	33	8 14 76	****	****	8.6	7.7	10.9	146.	5.1	68.	27	20	8.99	8.36	7.1	5.6
	33	8 15 76	****	****	8.0	7.3	8.7	115.	3.5	46.	34	23	8.93	8.61	7.0	5.7
	33	8 16 76	****	26.7	8.3	7.2	9.7	127.	2.5	33.	28	18	8.86	8.61	6.4	4.9
	33	8 17 76	****	26.1	8.6	7.0	11.7	151.	3.9	51.	26	20	8.99	8.55	6.3	5.2
	33	8 18 76	****	26.9	8.6	7.3	12.2	160.	4.7	62.	26	18	9.12	8.67	6.7	5.2
EXTREME			****	26.1	9.0	7.0	13.9	189.	2.5	33.	34.	18.	9.12	8.36	7.1	4.9
AVERAGE			****	27.3	8.6	7.5	11.4	151.	4.7	62.	28.	20.	8.91	8.52	6.8	5.4
	34	8 19 76	****	****	8.4	7.6	10.6	135.	6.8	87.	26	20	9.12	8.74	7.6	6.3
	34	8 20 76	****	24.9	8.6	7.6	12.5	159.	6.6	84.	24	17	9.31	8.67	7.6	6.2
	34	8 21 76	****	****	8.5	7.4	11.8	150.	5.9	75.	24	19	9.50	8.67	7.2	5.4
	34	8 22 76	****	****	8.5	7.4	10.3	134.	5.3	69.	23	19	9.62	8.99	6.7	5.5
	34	8 23 76	****	26.7	8.8	7.4	12.6	166.	4.7	62.	22	19	9.75	9.37	7.0	5.6
	34	8 24 76	****	****	8.5	7.4	9.9	130.	4.1	54.	23	20	9.88	9.37	7.0	5.7
	34	8 25 76	****	****	8.8	7.7	12.2	160.	5.7	75.	***	20	9.62	9.31	7.2	6.0
EXTREME			****	24.9	8.8	7.4	12.6	166.	4.1	54.	26.	17.	9.88	8.67	7.6	5.4
AVERAGE			****	25.8	8.6	7.5	11.4	148.	5.6	72.	24.	19.	9.54	9.02	7.2	5.8
	35	8 26 76	****	27.3	9.0	7.7	12.7	168.	5.6	74.	***	22	9.62	9.12	7.4	6.0
	35	8 27 76	****	****	8.7	7.7	11.3	150.	4.7	62.	***	22	9.37	8.86	7.4	6.0
	35	8 28 76	****	****	8.8	7.5	11.6	153.	3.8	50.	30	26	9.24	8.67	7.2	5.8
	35	8 29 76	****	****	8.7	7.7	10.0	130.	4.8	62.	***	21	9.37	8.86	6.9	5.6
	35	8 30 76	****	****	8.5	7.5	9.4	121.	5.0	65.	***	***	9.37	8.67	6.9	5.0
	35	8 31 76	****	****	8.6	7.5	11.4	146.	5.1	66.	***	***	9.37	8.74	7.2	5.7
	35	9 1 76	****	****	8.5	7.4	10.6	136.	4.7	60.	***	***	9.75	8.99	7.4	6.1
EXTREME			****	27.3	9.0	7.4	12.7	168.	3.8	50.	30.	21.	9.75	8.67	7.4	5.0
AVERAGE			****	27.3	8.7	7.6	11.0	143.	4.8	63.	30.	23.	9.44	8.84	7.2	5.7
	36	9 2 76	****	24.4	8.5	7.6	10.5	135.	5.5	70.	***	20	10.13	9.24	7.3	5.3
	36	9 3 76	****	25.2	8.6	7.4	11.0	141.	5.2	66.	***	***	9.62	9.24	7.3	5.5
	36	9 4 76	****	****	8.7	7.7	9.5	123.	5.8	74.	***	***	9.50	9.24	7.4	6.3
	36	9 5 76	****	****	8.6	7.7	9.7	125.	5.3	68.	***	***	9.69	9.24	7.6	5.7
	36	9 6 76	****	****	8.7	7.5	11.7	152.	4.7	61.	***	16	9.81	9.31	6.5	5.3
	36	9 7 76	****	****	8.7	7.5	10.7	140.	5.7	75.	***	17	9.81	9.18	7.1	5.6
	36	9 8 76	****	27.7	9.0	7.6	11.1	149.	4.8	64.	***	16	9.81	8.60	6.9	5.3
EXTREME			****	24.4	9.0	7.4	11.7	152.	4.7	61.	****	16.	10.13	8.80	7.6	5.3
AVERAGE			****	25.8	8.7	7.6	10.6	138.	5.3	68.	****	17.	9.77	9.18	7.2	5.6

Table 23. (Continued)

	WEEK	DATE MO DA YR	TEMPERATURE DEG C MAX	TEMPERATURE DEG C MIN	PH MAX	PH MIN	DISSOLVED OXYGEN PPM MAX	DISSOLVED OXYGEN PPM SAT	DISSOLVED OXYGEN PPM MIN	DISSOLVED OXYGEN PPM SAT	TURBIDITY JCU MAX	TURBIDITY JCU MIN	SALINITY PPT MAX	SALINITY PPT MIN	TIDE HEIGHT FT MAX	TIDE HEIGHT FT MIN
	37	9 9 76	27.0	25.5	8.9	7.8	10.4	138.	4.3	57.	22	18	10.32	9.88	6.6	5.4
	37	9 10 76	25.6	23.0	8.7	7.8	10.3	133.	5.2	65.	***	18	10.64	9.18	7.2	5.2
	37	9 11 76	23.2	22.0	8.4	7.5	8.1	101.	4.8	59.	***	***	10.58	10.00	6.6	5.2
	37	9 12 76	24.8	21.8	8.6	7.8	9.4	119.	5.3	64.	***	***	10.64	10.39	6.8	5.4
	37	9 13 76	26.2	22.7	9.0	7.8	12.4	162.	5.7	70.	***	***	10.90	9.88	6.6	5.5
	37	9 14 76	27.2	23.6	9.0	8.1	11.9	159.	6.7	84.	***	***	10.64	10.00	6.7	5.5
	37	9 15 76	25.6	23.2	8.6	7.5	8.8	114.	6.1	78.	***	***	10.71	10.39	6.8	5.8
EXTREME			27.2	21.8	9.0	7.5	12.4	162.	4.3	57.	22.	18.	10.90	9.18	7.2	5.2
AVERAGE			25.7	23.1	8.7	7.8	10.2	132.	5.4	68.	22.	18.	10.63	9.96	6.8	5.4
	38	9 16 76	23.4	22.6	****	****	8.1	100.	5.6	69.	***	***	10.52	10.07	7.4	****
	38	9 17 76	24.6	22.6	8.7	7.6	11.2	141.	5.3	65.	***	***	10.39	10.00	7.0	5.9
	38	9 18 76	24.1	22.8	8.4	7.5	6.4	81.	4.2	52.	***	***	10.64	10.20	6.8	5.7
	38	9 19 76	24.3	22.3	8.5	7.7	6.3	80.	3.8	47.	***	***	10.71	10.32	6.5	5.3
	38	9 20 76	23.9	22.6	8.5	7.9	9.5	120.	4.6	57.	***	***	10.96	10.56	6.9	5.9
	38	9 21 76	23.3	22.3	8.4	8.0	8.8	109.	6.7	83.	***	***	11.16	10.77	7.1	5.5
	38	9 22 76	22.4	21.3	8.3	7.4	7.5	92.	4.5	55.	***	***	11.16	10.90	6.8	5.6
EXTREME			24.6	21.3	8.7	7.4	11.2	141.	3.8	47.	****	****	11.16	10.00	7.4	5.3
AVERAGE			23.7	22.4	8.5	7.7	8.3	103.	5.0	61.	****	****	10.79	10.41	6.9	5.6
	39	9 23 76	22.0	20.5	8.5	7.6	9.2	112.	5.9	71.	25	20	11.22	10.96	7.4	5.9
	39	9 24 76	22.0	20.7	8.5	7.9	9.9	121.	6.5	78.	24	20	11.35	10.96	7.0	5.3
	39	9 25 76	21.9	20.8	8.7	7.9	10.6	128.	6.9	83.	25	20	11.22	10.96	7.3	5.5
	39	9 26 76	22.0	20.8	8.6	7.8	10.7	131.	6.2	75.	24	20	11.35	11.03	7.8	6.0
	39	9 27 76	22.1	21.4	8.5	7.9	8.7	106.	6.7	81.	25	16	11.29	11.03	7.7	6.2
	39	9 28 76	22.6	20.9	8.4	7.6	9.3	115.	4.6	56.	25	16	11.35	11.09	6.5	4.8
	39	9 29 76	21.6	20.8	8.3	7.5	8.8	109.	5.4	65.	25	19	11.48	10.96	7.4	6.0
EXTREME			22.6	20.5	8.7	7.5	10.7	131.	4.6	56.	25.	16.	11.48	10.96	7.8	4.8
AVERAGE			22.0	20.8	8.5	7.7	9.6	117.	6.0	73.	25.	19.	11.32	11.00	7.3	5.7
	40	9 30 76	21.1	19.4	8.0	7.4	7.1	86.	3.5	42.	24	17	11.61	11.09	7.5	6.5
	40	10 1 76	19.7	18.4	7.5	7.3	6.6	77.	5.3	62.	23	20	11.35	11.09	7.6	6.3
	40	10 2 76	18.7	17.5	7.4	7.2	6.4	73.	5.4	62.	24	19	11.16	10.64	8.1	6.7
	40	10 3 76	17.6	17.2	7.4	7.2	6.0	68.	5.3	59.	20	16	10.96	10.64	8.0	6.2
	40	10 4 76	18.6	17.3	7.5	7.2	7.5	86.	5.3	60.	20	12	10.90	10.26	7.3	6.2
	40	10 5 76	18.0	17.3	7.5	7.1	7.6	86.	5.0	56.	18	12	10.58	10.32	7.5	6.5
	40	10 6 76	19.7	17.8	8.0	7.2	10.3	120.	6.0	68.	17	15	10.64	10.39	7.8	6.5
EXTREME			21.1	17.2	8.0	7.1	10.3	120.	3.5	42.	24.	12.	11.61	10.26	8.1	6.2
AVERAGE			19.1	17.8	7.6	7.2	7.4	85.	5.1	59.	21.	16.	11.03	10.64	7.7	6.4

Table 23. (Continued)

		DATE	TEMPERATURE DEG C		PH		DISSOLVED OXYGEN PPM				TURBIDITY JCU		SALINITY PPT		TIDE HEIGHT FT	
	WEEK	MO DA YR	MAX	MIN	MAX	MIN	MAX	SAT	MIN	SAT	MAX	MIN	MAX	MIN	MAX	MIN
	41	10 7 76	19.8	17.2	8.5	7.3	11.6	136.	7.3	83.	18	13	10.71	10.39	7.5	6.3
	41	10 8 76	20.3	19.1	8.7	7.7	13.5	154.	7.7	87.	16	12	10.90	10.39	7.5	6.1
	41	10 9 76	20.1	19.7	8.4	7.9	10.0	118.	7.8	92.	18	13	10.71	10.20	8.7	6.4
	41	10 10 76	19.0	18.0	8.0	7.2	9.7	111.	6.4	73.	19	14	10.64	9.61	6.4	4.9
	41	10 11 76	18.4	17.2	8.2	7.2	11.8	134.	7.1	80.	21	15	10.58	10.26	6.2	5.1
	41	10 12 76	18.2	15.4	8.6	7.4	13.4	150.	8.4	93.	20	18	10.71	10.13	6.9	5.6
	41	10 13 76	18.0	16.0	8.8	7.9	11.6	133.	9.3	104.	20	18	11.03	10.39	7.6	6.3
EXTREME			20.3	15.4	8.8	7.2	13.5	154.	6.4	73.	21.	12.	11.03	9.81	8.7	4.9
AVERAGE			19.1	17.5	8.5	7.5	11.7	134.	7.7	87.	19.	15.	10.75	10.22	7.3	5.8
	42	10 14 76	16.9	16.2	9.0	8.4	11.7	131.	9.2	102.	22	17	10.77	10.64	7.2	5.2
	42	10 15 76	18.0	15.8	9.4	8.3	12.5	142.	9.4	103.	***	***	11.42	10.71	7.0	5.9
	42	10 16 76	16.6	15.7	8.7	8.4	10.5	116.	8.5	93.	20	16	11.03	10.64	6.4	4.9
	42	10 17 76	16.0	13.8	8.5	7.8	9.0	96.	7.7	83.	22	16	11.03	10.52	6.0	5.1
	42	10 18 76	14.2	13.0	8.2	7.4	8.7	93.	6.9	72.	24	18	10.96	10.64	6.9	5.5
	42	10 19 76	13.3	11.7	8.3	7.2	10.1	104.	7.3	74.	20	12	10.77	9.12	7.0	5.9
	42	10 20 76	13.3	12.4	8.4	7.9	10.1	102.	8.5	86.	20	11	9.24	8.11	7.0	5.8
EXTREME			18.0	11.7	9.4	7.2	12.5	142.	6.9	72.	24.	11.	11.42	8.11	7.2	4.9
AVERAGE			15.5	14.1	8.6	7.9	10.4	112.	8.2	88.	21.	15.	10.75	10.05	6.8	5.5
	43	10 21 76	13.2	12.0	8.4	7.6	10.2	104.	7.8	79.	16	13	9.05	8.36	7.1	5.3
	43	10 22 76	12.6	11.6	8.4	7.8	11.1	112.	8.8	88.	19	14	8.99	8.36	6.1	4.6
	43	10 23 76	12.4	10.8	8.8	7.4	12.6	126.	9.6	94.	20	14	8.61	8.42	5.9	4.1
	43	10 24 76	12.1	11.2	8.7	8.2	12.1	120.	10.2	101.	20	12	8.86	8.36	6.7	5.0
	43	10 25 76	13.0	11.8	9.2	8.2	14.2	144.	8.9	89.	***	***	9.05	8.36	6.9	5.2
	43	10 26 76	12.8	11.4	8.9	8.0	12.8	130.	8.4	86.	***	***	8.99	8.42	6.4	4.4
	43	10 27 76	12.0	10.1	9.3	7.0	****	****	****	****	41	14	8.99	8.49	6.9	5.1
EXTREME			13.2	10.1	9.3	7.0	14.2	144.	7.8	79.	41.	12.	9.05	8.36	7.1	4.1
AVERAGE			12.6	11.3	8.8	7.7	12.2	123.	8.9	89.	23.	13.	8.93	8.40	6.6	4.8
	44	10 28 76	****	12.9	****	****	****	****	****	****	16	14	*****	*****	****	****
	44	10 29 76	****	****	****	****	****	****	****	****	***	***	*****	*****	****	****
	44	10 30 76	12.4	9.4	9.1	7.7	17.6	170.	11.9	112.	18	13	8.36	8.05	6.6	5.3
	44	10 31 76	11.0	10.0	9.1	8.4	15.4	150.	11.4	109.	20	13	8.11	7.61	7.2	5.8
	44	11 1 76	10.8	9.7	8.9	8.4	14.0	135.	11.8	112.	19	15	8.23	7.86	6.2	4.7
	44	11 2 76	10.8	9.0	****	****	15.4	150.	11.7	110.	19	13	8.36	7.67	6.8	4.9
	44	11 3 76	9.7	9.0	9.0	8.6	14.4	135.	12.2	114.	16	13	7.92	7.67	7.1	6.1
EXTREME			12.4	9.0	9.1	7.7	17.6	170.	11.4	109.	20.	13.	8.36	7.61	7.2	4.7
AVERAGE			10.9	10.0	9.0	8.3	15.4	148.	11.8	111.	18.	14.	8.20	7.77	6.8	5.4

Table 23. (Continued)

	WEEK	DATE MO DA YR	TEMPERATURE DEG C MAX	MIN	PH MAX	MIN	DISSOLVED OXYGEN PPM MAX	SAT	MIN	SAT	TURBIDITY JCU MAX	MIN	SALINITY PPT MAX	MIN	TIDE HEIGHT FT MAX	MIN
	45	11 4 76	10.6	9.2	9.1	8.7	13.6	130.	11.3	106.	16	13	7.60	7.61	6.9	5.7
	45	11 5 76	9.8	9.4	8.8	8.6	12.2	116.	11.0	103.	16	13	8.05	7.67	7.0	5.4
	45	11 6 76	9.2	7.8	8.9	8.4	12.4	121.	10.9	104.	17	14	7.92	7.86	6.6	5.2
	45	11 7 76	9.7	8.3	9.0	8.5	12.9	121.	10.6	97.	18	14	7.92	7.73	5.9	4.5
	45	11 8 76	8.7	6.7	8.6	8.3	12.2	111.	10.4	95.	16	12	7.86	7.73	4.7	3.6
	45	11 9 76	6.6	6.0	****	****	12.5	113.	10.7	94.	19	16	7.92	7.73	7.0	3.9
	45	11 10 76	7.4	5.6	****	****	12.7	113.	11.2	97.	19	15	7.98	7.73	6.9	5.1
EXTREME			10.6	5.6	9.1	8.3	13.6	130.	10.4	94.	19.	12.	8.05	7.61	7.0	3.6
AVERAGE			8.9	7.6	8.9	8.5	12.6	118.	10.9	99.	17.	14.	7.92	7.73	6.4	4.8
	45	11 11 76	****	****	****	****	****	****	****	****	***	***	*****	*****	****	****
	46	11 12 76	****	****	****	****	****	****	****	****	***	***	*****	*****	****	****
	46	11 13 76	5.6	4.4	****	****	14.3	122.	12.4	104.	13	9	7.61	7.42	5.9	4.3
	46	11 14 76	5.6	3.9	****	****	14.7	126.	12.3	105.	26	10	7.61	7.42	6.0	4.8
	46	11 15 76	5.8	4.7	****	****	15.8	136.	12.9	108.	17	8	7.67	7.30	5.8	4.9
	46	11 16 76	5.5	4.2	****	****	15.2	129.	12.3	102.	11	6	7.36	6.99	6.5	4.8
	46	11 17 76	6.0	3.9	****	****	15.3	129.	13.4	111.	17	6	7.67	7.11	6.5	5.4
EXTREME			6.0	3.9	****	****	15.8	136.	12.3	102.	26.	6.	7.67	6.99	6.5	4.3
AVERAGE			5.7	4.2	****	****	15.1	129.	12.7	106.	17.	8.	7.59	7.25	6.1	4.6
	47	11 18 76	5.3	4.4	****	****	****	****	****	****	***	***	*****	*****	****	5.4
	47	11 19 76	6.6	4.8	****	****	14.3	125.	12.8	108.	14	8	7.73	7.49	6.7	5.2
	47	11 20 76	7.1	5.5	****	****	13.8	120.	11.9	103.	20	9	8.11	7.42	6.7	4.6
	47	11 21 76	7.6	4.9	****	****	14.7	129.	12.2	105.	24	10	8.17	7.61	6.9	5.2
	47	11 22 76	6.4	5.0	****	****	13.2	115.	10.0	87.	13	8	8.11	7.61	6.1	4.0
	47	11 23 76	6.4	4.0	****	****	13.2	111.	11.6	97.	13	10	7.92	7.86	5.7	3.9
	47	11 24 76	5.2	3.3	****	****	13.7	116.	12.1	99.	18	9	8.42	7.86	6.0	4.1
EXTREME			7.6	3.3	****	****	14.7	129.	10.0	87.	24.	6.	8.42	7.42	6.9	3.9
AVERAGE			6.4	4.6	****	****	13.8	120.	11.8	100.	17.	9.	8.08	7.64	6.3	4.7
	48	11 25 76	5.3	3.4	****	****	14.0	120.	12.6	106.	17	10	8.36	8.05	6.2	4.4
	48	11 26 76	6.2	4.0	****	****	13.8	124.	12.7	106.	12	9	8.49	8.11	6.3	5.1
	48	11 27 76	8.3	6.2	****	****	14.7	136.	12.1	107.	12	10	8.55	8.30	6.4	5.2
	48	11 28 76	8.1	7.0	****	****	15.1	135.	11.9	107.	12	9	8.49	8.23	6.4	5.3
	48	11 29 76	7.9	6.0	****	****	14.4	131.	5.8	52.	13	9	8.74	8.23	5.2	4.9
	48	11 30 76	6.4	4.1	****	****	12.8	110.	5.6	48.	15	10	8.61	8.36	5.8	4.3
	48	12 1 76	4.5	3.5	****	****	14.0	118.	11.6	98.	12	11	8.61	8.49	6.5	4.6
EXTREME			8.3	3.4	****	****	15.1	138.	5.6	48.	17.	9.	8.74	8.05	6.5	4.3
AVERAGE			6.7	4.9	****	****	14.1	125.	10.4	89.	13.	10.	8.55	8.25	6.1	4.9

Table 23. (Continued)

	WEEK	DATE MO DA YR	TEMPERATURE DEG C MAX	MIN	PH MAX	MIN	DISSOLVED OXYGEN PPM MAX	SAT	MIN	SAT	TURBIDITY JCU MAX	MIN	SALINITY PPT MAX	MIN	TIDE HEIGHT FT MAX	MIN
	48	12 2 76	4.5	3.5	****	****	14.0	118.	11.8	98.	48	32	8.55	8.42	6.8	5.0
	49	12 3 76	3.8	2.4	****	****	14.8	115.	12.2	99.	26	12	8.67	8.45	5.7	3.8
	49	12 4 76	3.6	1.4	****	****	14.7	121.	12.7	104.	15	12	8.74	8.51	6.6	5.0
	49	12 5 76	3.4	1.4	****	****	15.5	129.	13.2	107.	13	11	8.74	8.55	5.5	4.4
	49	12 6 76	3.7	2.5	****	****	15.9	132.	13.7	113.	15	12	8.67	8.55	6.2	4.7
	49	12 7 76	3.8	3.2	****	****	15.0	125.	13.4	111.	14	12	8.46	8.23	7.6	5.7
	49	12 8 76	3.5	2.1	****	****	13.8	114.	12.6	104.	15	13	8.86	8.11	5.9	4.4
EXTREME			4.5	1.4	****	****	15.9	132.	11.8	98.	48.	11.	8.86	8.11	7.6	3.8
AVERAGE			3.8	2.4	****	****	14.7	122.	12.6	105.	21.	15.	8.73	8.42	6.2	4.7
	50	12 9 76	2.9	1.6	****	****	15.2	124.	12.4	99.	15	13	8.61	8.36	6.1	4.5
	50	12 10 76	3.3	2.3	****	****	14.9	122.	13.5	110.	15	13	8.61	8.36	6.1	4.5
	50	12 11 76	3.4	2.0	****	****	14.9	123.	13.4	109.	13	11	8.36	8.05	5.3	4.1
	50	12 12 76	3.6	3.1	****	****	15.1	124.	13.0	107.	14	11	8.67	8.11	5.8	4.2
	50	12 13 76	3.4	2.9	****	****	13.9	114.	10.9	90.	15	13	8.49	8.23	5.7	4.0
	50	12 14 76	2.0	1.8	****	****	14.4	118.	12.1	98.	***	***	8.49	8.11	5.8	4.0
	50	12 15 76	2.4	2.0	****	****	14.3	116.	13.0	105.	***	***	8.42	8.30	5.6	4.6
EXTREME			3.6	1.6	****	****	15.2	124.	10.9	90.	15.	11.	8.67	8.05	6.1	4.0
AVERAGE			3.0	2.3	****	****	14.7	120.	12.6	103.	14.	12.	8.52	8.22	5.8	4.3
	51	12 16 76	2.7	2.3	****	****	14.4	116.	12.4	100.	***	***	8.49	8.23	6.1	4.3
	51	12 17 76	3.9	2.9	****	****	13.7	111.	11.5	92.	13	11	8.74	8.30	6.8	3.3
	51	12 18 76	2.7	1.6	****	****	13.4	108.	12.4	99.	12	10	8.49	8.30	6.1	4.8
	51	12 19 76	3.2	1.6	****	****	13.3	108.	12.3	97.	13	11	8.42	8.11	6.3	4.8
	51	12 20 76	4.1	2.9	****	****	13.0	106.	12.2	101.	13	11	8.49	8.30	6.5	4.6
	51	12 21 76	3.3	0.6	****	****	12.6	101.	11.7	95.	18	11	8.49	8.23	5.7	3.3
	51	12 22 76	0.8	0.0	****	****	12.4	96.	12.0	93.	14	12	8.42	8.23	5.4	3.3
EXTREME			4.1	0.0	****	****	14.4	116.	11.5	92.	18.	10.	8.74	8.11	6.8	3.3
AVERAGE			3.0	1.7	****	****	13.3	107.	12.1	97.	14.	11.	8.50	8.25	6.1	4.3
	52	12 23 76	1.8	0.3	****	****	12.4	98.	11.9	92.	12	11	8.42	8.36	5.5	4.1
	52	12 24 76	1.4	0.6	7.8	7.5	12.5	99.	10.8	84.	12	10	8.49	8.23	5.4	3.6
	52	12 25 76	1.2	0.1	7.6	7.7	12.6	98.	11.9	93.	11	11	8.61	8.49	6.6	4.9
	52	12 26 76	2.4	0.6	8.0	7.5	12.8	101.	11.6	93.	12	10	8.61	8.49	5.8	4.5
	52	12 27 76	2.9	1.2	7.8	7.6	12.6	101.	11.5	91.	11	10	8.99	8.42	5.9	4.6
	52	12 28 76	2.6	1.4	7.8	7.6	12.6	102.	12.1	96.	11	10	8.86	8.61	6.4	5.4
	52	12 29 76	2.4	1.8	7.7	7.6	12.4	100.	11.9	96.	12	11	8.80	8.74	7.0	4.9
EXTREME			2.6	0.1	8.0	7.5	12.8	102.	10.8	84.	12.	10.	8.99	8.23	7.0	3.6
AVERAGE			2.0	0.9	7.8	7.6	12.6	100.	11.7	92.	12.	10.	8.69	8.48	6.1	4.6

Table 23. (Continued)

WEEK	DATE MO DA YR	TEMPERATURE DEG C MAX	MIN	PH MAX	MIN	DISSOLVED OXYGEN PPM MAX	SAT	MIN	SAT	TURBIDITY JCU MAX	MIN	SALINITY PPT MAX	MIN	TIDE HEIGHT FT MAX	MIN
52	12 30 76	2.3	1.5	7.9	7.4	12.8	102.	11.4	92.	11	10	8.99	8.86	7.0	5.4
52	12 31 76	2.3	1.4	7.9	7.4	12.6	100.	10.5	86.	12	10	8.99	8.74	6.4	3.3